DOCUMENT RESUME

ED 109 338 CE 004 117

AUTHOR	Gades, Robert, Ed.
TITLE	NUSTEP: Business Education Learning Tasks.
INSTITUTION	Nebraska Univ., Lincoln. Teachers Coll.
PUB DATE	74
NOTE	99p.
EDRS PRICE	MF-$0.76 HC-$4.43 PLUS POSTAGE
DESCRIPTORS	Bookkeeping; *Business Education; *Business Education Teachers; *Educational Resources; Education Majors; Higher Education; Instructional Aids; *Learning Activities; Methods Courses; *Performance Based Teacher Education; Teacher Education; Teaching Methods; Teaching Procedures

ABSTRACT

The guide presents 15 learning tasks for students preparing to teach business education. Each task contains problem areas, performance objectives, prerequisites, and learning activities. The learning tasks are: orientation to basic business; systematic planning of instructional units; writing objectives for teaching bookkeeping or a basic business course; organizing long term instructional units in a basic business course; teaching a lesson in bookkeeping; selecting and developing materials in bookkeeping or a basic business course; specific instructional approaches in bookkeeping; methods of presentation in bookkeeping and basic business classes; evaluation processes unique to bookkeeping; educational accountability for teachers; contracting as a process for managing individualized instruction; classroom control and behavior modification; verbal learning for teachers of business education; and skill learning. The largest single unit is that on methods of presentation which covers 30 pages. (JR)

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PERFORMANCE BASED
TEACHER EDUCATION
PROGRAM

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BUSINESS
TEACHER EDUCATION
LEARNING TASKS

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1974
DEPARTMENT OF EDUCATIONAL
PSYCHOLOGY & MEASUREMENTS
DEPARTMENT OF SECONDARY EDUCATION
TEACHERS COLLEGE
UNIVERSITY OF NEBRASKA – LINCOLN
LINCOLN, NEBRASKA

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NUSTEP

BUSINESS EDUCATION LEARNING TASKS

Robert Gades, Editor

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UNIVERSITY OF NEBRASKA-LINCOLN

1974

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BUSINESS EDUCATION LEARNING TASKS

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BOOKKEEPING AND BASIC BUSINESS METHODS (NUSTEP)

Competencies required for completion:

The student will be able to:

1. Identify those courses which are generally considered "basic business" courses in Business Education.
2. Sketch brief outlines of units which should be included in the various basic business courses.
3. Identify the basic elements needed in, and prepare a sample lesson plan for a topic area of bookkeeping or basic business.
4. Identify those elements needed in, and construct a unit plan for a bookkeeping or basic business course.
5. Teach the various major lessons in the bookkeeping cycle.
6. Select and/or develop suitable media and materials for a bookkeeping or basic business course.
7. Identify the teaching methods and activities which can be used in bookkeeping or basic business.
8. Identify at least five techniques of evaluation for bookkeeping and basic business teaching and learning.
9. Prepare an evaluation instrument to measure the achievement of bookkeeping or basic business students in some major part of the course.
10. Meet the criteria established for completion of Spiral I of NUSTEP. A copy of these criteria is attached.

Learning Task 20
ORIENTATION TO BASIC BUSINESS

PROBLEM AREA: What courses are included in "Basic Business," and what shall the teacher include in those courses?

PERFORMANCE OBJECTIVES:

1. Identify those courses which are generally considered "basic business" courses in Business Education.

2. Select and defend in a small group session those units which should be included in one basic business course.

3. Sketch brief outlines of units which should be included in the various basic business courses.

PREREQUISITE(S): Successful completion of Spiral One.

LEARNING ACTIVITIES:

A. READINGS

1. Investigate various texts, teacher's guides, and curriculum guides as provided by the instructor.
2. Review *Methods of Basic Business and Economic Education* by Daughtrey.

B. ACTIVITIES FOR CLASSROOM PRACTICE

1. In a group session with a group interested in the same course, analyze current trends in business and develop a list of units which should be included in that course to fit those trends.
2. Analyze the course content of the course or courses which you have observed or in which you are working as a teacher assistant.

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. Interview a teacher of basic business courses concerning his/her feelings about trends in business education, the structure and content of his/her particular course, and how this structure and content is changing to meet trends.
2. Interview two people working in the field of business to determine what they deem to be the needs of students in basic business.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Complete and have approved by your proctor:

   a. A list of courses making up "Basic Business."
   b. An outline of the units which you would include in each of these courses.

Learning Task 21
SYSTEMATIC PLANNING OF INSTRUCTIONAL UNITS IN BOOKKEEPING AND BASIC BUSINESS COURSES

PROBLEM AREA: How does the teacher plan and develop formal lesson plans for bookkeeping and basic business courses?

PERFORMANCE OBJECTIVES:

1. Identify the steps necessary in good lesson planning.
2. Identify the basic elements needed in a good lesson plan.
3. Prepare a sample lesson plan for a topic area of bookkeeping.

PREREQUISITE(S): Successful completion of LT 20.

LEARNING ACTIVITIES:

A. READINGS

1. Read "Lesson Planning in Bookkeeping" attached.
2. Study the lesson plan, "Closing the Ledger," also attached.
3. Study Chapter 6 of *Methods of Teaching Bookkeeping--Accounting*.

B. ACTIVITIES FOR CLASSROOM PRACTICE (Individually or in a group setting)

1. Analyze the lesson plans provided in the readings.
2. Develop a list of the elements which you would defend as necessary for good lesson planning.

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. Prepare a lesson plan for use in your practice setting.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Prepare a lesson plan with all the necessary elements for either bookkeeping or a basic business course. Indicate the teaching method(s) you will use to teach the lesson. (You may coordinate this plan with LT 24).

LESSON PLANNING IN BOOKKEEPING*

It is not the purpose of this chapter to restate the generally accepted and "approved" preachments concerning lesson planning. It is rather intended to indicate a practical, common-sense approach to lesson planning. In doing so, it is hoped that the halo around lesson planning will be removed and that lesson planning will be restored to its rightful, serviceable place--in the classroom.

Lesson plans should be simple.

The writing of an elaborate lesson plan requires much time. Such time can best be applied in other directions, such as: developing instructional materials, more careful checking of pupils' papers for the purpose of detecting remediable errors, reading of current pedagogical literature, reading in general, or just relaxing. Furthermore, in the mad rush of things, when lesson planning requires an inordinate amount of time--and what teacher has much time at his disposal?--there's a tendency to enter the classroom with a very desultory plan or with no plan at all.

The lesson plan should indicate the flow of work for the period.

A workable lesson plan provides for "one way traffic" in the unfolding of the period. It is of no practical value if it fails to reflect the sequence to be followed within the lesson.

A practicable working plan for a development lesson in bookkeeping would generally include the following features:

Aim
Materials Required
Assignment
Warm-up
Motivation
Development
Drill
Summary
Application
Post-lesson Comment

Instant reactions to the lesson are forgotten if not reduced to writing. It is for this reason that one should record the post-lesson evaluation of the plan before giving thought to the new day's work.

The plan should indicate the pitfalls that are to be anticipated.

One basic purpose of all planning is to avoid, or at least reduce, stumbling blocks that are liable to impede learning. Some of these stumbling blocks that trouble the slow pupils (and the average ones, too) pertain to technical terminology, general vocabulary, or arithmetical foundation. Other pitfalls, such as typographical errors, are sources of trouble even to the most capable among our pupils.

*Reprinted from monograph 96, "Helpful Hints In Teaching Bookkeeping and Accounting," by I. David Satlow, South-Western Publishing Company

When planning your work for the day, watch for little bothersome items to call to the attention of your students. Examples of these are: a typographical error in the textbook, an explanation of computing the proceeds of a note in a problem to be assigned, or clarification of the amounts on an invoice.

At best, the lesson plan reflects the personality and needs of the user.

The teacher weak in his timing should include a time allotment in his written plans; one in need of improvement in questions should reduce to writing the exact phrasing of a series of questions that he plans to employ. As the teacher grows in service, key questions--the essentials--remain in his plan while minor questions--sequential subquestions--are not listed.

The execution of the plan should reflect a proper balance.

Bookkeeping is not all theory; consequently, the class session should not be a talk-fest. Bookkeeping is debits and credits; hence, the need for entry work. But the entries must have meaning; hence, the need for discussion that assures understanding. We thus see the desirability of blending theory and practice, oral and written work, work at the chalkboards and work at the seats. The greater amount of variety introduced into the plan for realizing the lesson aim, the greater the degree of sustained interest by the class.

Adhere to the lesson plan.

A person traveling by car from Chicago to Los Angeles is likely to find many attractive sights along the route. An occasional stop or even stop-over makes for an interesting and enjoyable trip. However, the yielding to temptation by stopping everywhere may provide many interesting experiences and much adventure, but will never permit our traveler's arrival at his Los Angeles destination.

The teacher can ill-afford to be a dilettante. In the main, his lesson plan is to be followed rigidly. An occasional digression may be justified; however, he should be alert to the danger inherent in digression--the possibility that the lesson will not be completed.

If, in the course of the lesson, certain areas calling for special exploration, development and drill come to light, the teacher should plan for organized instruction on these knowledges and skills at a subsequent lesson. He cannot devote the same lesson to both the planned aim and to the suddenly discovered necessary aim. An attempt to move in two directions simultaneously will produce success in neither direction.

A good lesson plan, once tried out and revised, may be reused.

It may be shocking to some people to find a supervisor expressing himself in this fashion. However, let us be realistic at all times. We should not be so imbued with the form as to forget the spirit. What purpose does a lesson plan serve? It is a blueprint for forty minutes of activity in the teacher-pupil-subject matter relationship. While our quest for truth is an interminable one, it is quite conceivable that one's approach to a certain lesson topic has been developed to a point of relative perfection. To make a fetish of requiring a new set of plans each term is absurd, since it encourages the blind copying of materials from last term's plan book into this term's.

The spirit behind lesson planning is important; the desire for professional growth should be infused, but the rigid requirement of a new detailed plan each time the lesson is taught without justifiable foundation.

Above all, we should realize that lesson planning is a means to an end, not an end in itself.

The goal of lesson planning is improved teaching through careful consideration of the following questions:

1. What can I reasonably expect to have the class accomplish in the course of the recitation period?
2. What in the pupils' background can be used as the basis for expediting the new learning?
3. How can they best see the need for the new work?
4. What questions will best bring out the statement of the problem and its development, and will summarize the new learning and assure understanding?
5. What materials are to be on hand for use during the lesson?
6. What practice work will assure learning for mastery?
7. What home assignment will provide reasonable practice that will assure retention?

CLOSING THE LEDGER

Bookkeeping I
Second Period
Monday, August 17, 1972

Before Class

Prepare transparencies
- --Bookkeeping cycle
- --Net income formula
- --Steps to follow in closing
- --journal, ledger sheets

Prepare handouts
- --Terms appropriate for closing
- --Journal, ledger sheets
- --Steps to follow in closing

Obtain: 2 overhead projectors and screens
wax pencils
small, wet sponge
Handout: 3 sets (see above)
Assignment: written on board

I. Objectives

A. To enable the students to understand that closing the ledger is just one phase of the accounting cycle.

B. To indicate when the ledger is closed.

C. To demonstrate why it is necessary to close the ledger.

D. To introduce the basic techniques involved in closing the ledger.

II. Background

A. Review briefly the chain of processes learned to date.
  1. Project: Bookkeeping Cycle transparency (revelation technique)

B. Discuss the element of time involved in the cycle.
  1. Refer to handout - terms
  2. Discuss fiscal period

III. Teaching Procedures

A. What is meant by closing the ledger?
  1. Define - closing the ledger (refer students to terms handout)
  2. Define - closing entries (refer students to terms handout)
  3. Distinguish between open and closed accounts - on blackboard

1. Open account - write on blackboard

Dan's Commissions	
	25
	30
	10
	65

Credit Balance is 65

2. Closed account - write on blackboard

Dan's Commissions	
65	25
	30
	10
65	65

Balance is 0

B. Give reasons why it is necessary and important to close the ledger.
  1. To provide accurate and current pictures of profits
    a. Explain: Main goal of businesses is profit and accounting system should provide information about profit.
    b. Ask: How do we determine profit?
      1. Show transparency - net income
    c. Ask: On which financial statement we have studied do we determine net income? Income statement?
    d. Explain: All information needed to make closing entries can be taken from the income statement
  2. To prepare the books for a new accounting period
  3. To bring the capital account up to date
  4. Review - restate the 3 reasons listed above to emphasize

C. What kind of ledger accounts are closed?
  1. Explain: revenue and expense accounts
    a. Refer to handout terms for definitions
  2. Explain: temporary and permanent accounts
    a. Refer students to terms handout for definitions
    b. Ask: On which financial statement do we find only temporary accounts and on which do we find only permanent accounts? Income statement and balance sheet?

D. Technique involved in closing the ledger
  1. Project 2 transparencies
    a. List of steps (progression technique)
    b. Ledger and journal reproductions
  2. Work hypothetical problem going through steps (use separate procedure at first)
    a. Page 1
      --Journal
      --Revenue account
      --Expense account
      --Capital account
    b. Page 2
      --Journal
      --Drawing account
      --Capital account
    c. Page 3
      --Journal
      --Revenue account
      --Expense account
      --Income summary account
      --Capital account
      1. Giving reasons for using Income summary
        --Convenience (accumulates expenses and income)
        --Transfers only the net profit or loss to the capital account
  3. Review if time permits

IV. Assignment

A. Assignment is page 85 of text

B. Purpose of the assignment
  1. Explain that assignment is to familiarize the student with the proper steps to follow in closing the ledger
  2. Explain that the assignment is designed to help the student differentiate the revenue and expense accounts from other permanent accounts which aren't closed.

Learning Task 22
WRITING OBJECTIVES FOR TEACHING BOOKKEEPING OR A BASIC BUSINESS COURSE

PROBLEM AREA: With broad goals and course objectives in mind, how do I translate them into instructional objectives for daily teaching?

PERFORMANCE OBJECTIVES:

1. List the units or modules needed for a bookkeeping or basic business course.
2. Write instructional objectives in all three domains for two different lessons.

PREREQUISITE(S) None.

LEARNING ACTIVITIES:

A. READINGS

1. "Learning for Mastery" by Benjamin S. Bloom.
2. Read packaged materials on behavioral objectives and individualizing instruction.
   (Both of these available from the instructor)

B. ACTIVITIES FOR CLASSROOM PRACTICE

1. Determine the units or modules needed for a bookkeeping or basic business course of your choice.

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. Determine the modules needed for one of the basic business courses.
2. Develop a lattice for at least one of the modules in this course.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Turn in to your instructor the list of units or modules developed for bookkeeping or basic business course selected.
2. Write behavioral objectives in all three domains for two different lessons in this course.

Learning Task 23
ORGANIZING LONG TERM INSTRUCTIONAL UNITS IN A BASIC BUSINESS COURSE

PROBLEM AREA: Taking a unit from a basic business course, how do I develop a plan to teach that unit?

PERFORMANCE OBJECTIVES:

1. Identify those elements needed in a unit plan for a basic business course.

2. Construct a unit plan for a basic business course.

PREREQUISITE(S): Learning Task 20

LEARNING ACTIVITIES:

A. READINGS

1. From texts, curriculum guides, and course outlines, compile a list of major units which are included in the course you have chosen to teach.
2. Read Chapter 7, page 251 of Methods of Basic Business and Economic Education.
3. Review samples of unit plans available in the NUSTEP Library.

B. ACTIVITIES FOR CLASSROOM PRACTICE

1. Analyze courses and texts to determine the most common elements in the unit plan.

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. Working with your teacher assisting teacher, develop units for her course.
2. Develop all the materials needed to complete the unit planned.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Turn in to your instructor a completed unit plan for a selected unit in general business.

Learning Task 24
TEACHING A LESSON IN BOOKKEEPING

PROBLEM AREA: How are the various parts of the bookkeeping cycle presented and how do those parts fit into the entire cycle?

PERFORMANCE OBJECTIVES:

1. Identify where this lesson fits into the bookkeeping cycle.
2. Show the best method for presenting the lesson.
3. Teach the lesson to the class.

PREREQUISITE(S): Successful completion of Learning Task 21.

LEARNING ACTIVITIES:

A. READINGS

1. Study very carefully the available high school bookkeeping textbooks. Note how your lesson plan fits into the bookkeeping cycle.
2. Study the various teacher's guides and curriculum guides available in the NUSTEP library.
3. Study the part of Methods of Teaching Bookkeeping-Accounting which pertains to your lesson.

B. ACTIVITIES FOR CLASSROOM PRACTICE

1. Discuss with fellow students the plans for your lesson.
2. Determine whether your plans fit in with others who are teaching a lesson.

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. If possible, prepare a lesson plan and teach a lesson in your teacher assisting classroom.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Prepare a lesson plan with all the necessary elements for your assigned lesson. (You may use the plan developed for LT 21 if you developed your plan for this lesson.
2. Teach your 20 to 40-minute lesson to the class. The presentation will be videotaped and you will critique it with your proctor as soon after presentation as possible.

Learning Task 25
SELECTING AND DEVELOPING MATERIALS IN BOOKKEEPING OR A BASIC BUSINESS COURSE

PROBLEM AREA: What materials are available and/or need to be prepared for the effective completion of a unit.

PERFORMANCE OBJECTIVES:

1. Select and/or develop suitable materials for a basic business course.

PREREQUISITE(S): None.

LEARNING ACTIVITIES:

A. READINGS

1. Study teacher's manuals for various basic business textbooks.
2. Examine a sample resource file available in the instructor's office.
3. Examine the attached Listing of Free or Inexpensive Materials.
4. Read Chapter 7 of Methods of Teaching Bookkeeping and Accounting.

B. ACTIVITIES FOR CLASSROOM PRACTICE

None

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. Select and/or develop materials for a course in which you are student assisting.
2. Develop a bulletin board in your teacher assisting classroom.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Turn in to your proctor the materials collected and/or developed for the unit plan completed in LT 23.
2. Collect a variety of materials which could be used in teaching a number of the basic business courses. (Remember that there are many other sources in addition to the ones listed on the following pages).

LISTING OF FREE OR INEXPENSIVE MATERIALS

1. American Council on Consumer Interest
238 Stanley Hall
University of Missouri - Columbia
Columbia, MO 65201

2. American Federation of Labor and
Congress of Industrial Organizations
815 Sixteenth Street, N.W.
Washington, D.C. 20006

3. American Investment Co. of Illinois
121 South Broad Street
Philadelphia, PA 19107

4. American Stock Exchange
Publications Department
86 Trinity Place
New York, N.Y. 10006

5. Paul S. Amidon & Assoc., Inc.
5408 Chicago Avenue South
Minneapolis, MN 55417

6. Banking Education Council
1120 Connecticut Avenue, N.W.
Washington, D.C. 20036

7. Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, MA 01301

8. Chicago Board of Trade
141 West Jackson Boulevard
Chicago, IL 60604

9. Council for Family Financial Education
Twin Towers
Silver Spring, MD 20910

10. Council of Better Business Bureaus
1150 Seventeenth Street, N.W.
Washington, D.C. 20036

11. Credit Union National Association
Public Relations Department
1617 Sherman Avenue
P. O. Box 431
Madison, WI 53701

12. J. M. Dain & Company
110 South Sixth Street
Minneapolis, MN 55402

13. Department of Health, Education
and Welfare
Social Security Administration
Baltimore, MD 21235

14. Division of Home Economics
Federal Extension Service
U. S. Dept. of Agriculture
Washington, D.C. 20202

15. Dover Publications, Inc.
180 Varick Street
New York, N.Y. 10014

16. Dun & Bradstreet, Inc.
P. O. Box 803
Church Street Station
New York, N.Y. 10008

17. Federal Reserve Bank of Atlanta
Atlanta, GA 30303

18. Federal Reserve Bank of Chicago
Box 834
Chicago, IL 60690

19. Office of Public Information
Federal Reserve Bank of Minneapolis
Minneapolis, MN 55440

20. Federal Reserve Bank of New York
New York, N.Y. 10045

21. Federal Reserve Bank of Philadelphia
Philadelphia, PA 19101

22. Federal Reserve Bank of Richmond
Richmond, VA 23261

23. Federal Reserve Bank of St. Louis
P. O. Box 442
St. Louis, MO 63166

24. Federal Reserve Bank of San Francisco
P. O. Box 7702
San Francisco, CA 94120

25. Federal Reserve System
Board of Governors
Washington, D.C. 20551

26. First National Bank of St. Paul
332 Minnesota Street
St. Paul, MN 55101

27. Household Finance Corporation
Prudential Plaza
Chicago, IL 60601

28. Industrial Relations Center
The University of Chicago
1225 East Sixtieth Street
Chicago, IL 60637

29. Institute of Life Insurance
277 Park Avenue
New York, N.Y. 10017

30. International Consumer Credit
Association
375 Jackson Avenue
St.Louis, MO 63130

31. Investment-in-the America National
Council, Inc.
121 South Broad Street
Philadelphia, PA 19107

32. Investors Diversified Services
Investors Building
Eighth & Marquette
Minneapolis, MN 55402

33. The Kiplinger Washington Editors, Inc.
Changing Times Reprint Service
1729 H Street, N.W.
Washington, D.C. 20006

34. Manufacturers Hanover Trust
350 Park Avenue
New York, N.Y. 10022

35. McGraw-Hill Book Company
Webster Division
Manchester Road
Manchester, MO 63011

36, Merrill, Lynch, Pierce, Fenner &
Smith, Inc.
Executive Building
Publications Division
1624 Douglas Street
Omaha, NE 68102

37. Minneapolis Grain Exchange
400 Fourth Street
Minneapolis, MN 55415

38. Minnesota AFL-CIO Federation
of Labor
414 Auditorium Street
St. Paul, MN 55102

39. National Business Education Assoc.
1201 Sixteenth Street, N.W.
Washington, D.C. 20036

40. National Canners Association
113 - Twentieth Street, N.W.
Washington, D.C. 20036

41. National Consumer Finance
Association
Suite 702
1000 Sixteenth Street, N.W.
Washington, D.C. 20036

42. National Foundation for Consumer
Credit
Federal Bar Building West
1819 H Street, N.W.
Washington, D.C. 20006

43. National Research Bureau, Inc.
424 North Third Street
Burlington, Iowa 52601

44. New York Stock Exchange, Inc.
Publications Division
11 Wall Street
New York, N.Y. 10005

45. Ohio Consumer Loan Association
79 East State Street
812 Hartman Building
Columbus, OH 43215

46. Pacific Coast Stock Exchange
301 Pine Street
San Francisco, CA 94104

47. Paine, Webber, Jackson & Curtis
140 Broadway
New York, N.Y. 10005

48. Piper, Jaffray & Hopwood
115 South Seventh Street
Minneapolis, MN 55402

49. Public Affairs Committee
381 Park Avenue South
New York, N.Y. 10016

50. Savings and Loan League of
Minnesota
Suite 303
625 Second Avenue South
Minneapolis, MN 55402

51. Securities Industry Association
120 Broadway
New York, N.Y. 10005

52. Travelers Insurance Company
Public Information Representative
One Tower Square
Hartford, CT 06115

53. United States Savings & Loan League
111 East Wacker Drive
Chicago, IL 60601

54. University of Minnesota
Division of Research
Graduate School of Business
Administration
Minneapolis, MN 55455

Answering Questions About Trust Funds (34)
How Our Bank Helps Our City (34)
Newsletter (1)
Consumers Look at Fair Trade - $.50/each (1)
Journal of Consumer Affairs - $2.50 for winter or summer editions (1)
Handbook of Life Insurance (29)
Source Book of Health Insurance (29)
Decade of Decision (29)
List of worthwhile Life and Health Insurance Books (29)
A Date With Your Future (29)
Policies for Protection (29)
Sets, Probability and Statistics (the mathematics of Life Insurance) (29)
Catalog of teaching aids of Life and Health Insurance and Money Management (29)
Keeping Our Money Healthy, 16 pp., 1970 (20)
Money: Master or Servant? 45 pp., 1971 (20)
The Story of Checks, 21 pp., 1972 (20)
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   Keys for Business Forecasting
   Measuring Price Changes: A Study of the Price Indexes
   You and Your Money
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   How Banks Help (6)
   You, Money & Prosperity (6)
   Personal Money Management (6)

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Teaching Consumer Education and Financial Planning - 179pp., $6.00/copy (9)
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Learning Task 26
SPECIFIC INSTRUCTIONAL APPROACHES IN BOOKKEEPING

PROBLEM AREA: What approach is the most appropriate in the teaching of bookkeeping?

PERFORMANCE OBJECTIVES:

1. Identify the basic approaches to the bookkeeping cycle.
2. Prepare, conduct, and evaluate a micro-teaching activity in which an acceptable approach to the bookkeeping cycle is used.

PREREQUISITE(S): None.

LEARNING ACTIVITIES:

A. READINGS

1. Pages 1-4 of Bookkeeping Instruction in the Twentieth Century (Southwestern Monograph 118)
2. Chapter 5 of Methods of Teaching Bookkeeping--Accounting.
3. Study the various approaches used in current bookkeeping textbooks.

B. ACTIVITIES FOR CLASSROOM PRACTICE

1. Analyze the various approaches used in current bookkeeping textbooks to determine what approach they are using.

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. Teach additional lessons using the approaches used in the various current bookkeeping textbooks.
2. Develop media (slides, transparencies, etc.) to use when beginning the bookkeeping cycle.
3. Discuss the approach used by at least one bookkeeping teacher in the teacher assisting situation with that teacher.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Micro-teach a lesson (approximately 10-15 minutes) before a group of your fellow students using one of the acceptable approaches to the bookkeeping cycle.
2. Prior to micro-teaching, turn in a lesson plan for that lesson.
3. Following micro-teaching, critique your success in achieving objectives for the lesson. View and analyze your tape with your instructor.

Learning Task 27
METHODS OF PRESENTATION IN BOOKKEEPING AND BASIC BUSINESS CLASSES

PROBLEM AREA: What are some of the various methods of presentation of material which will best promote understanding?

PERFORMANCE OBJECTIVE:

1. Identify most of the teaching methods and activities which can be used in bookkeeping or basic business classes.

PREREQUISITE(S): Learning Tasks 20 and 21.

LEARNING ACTIVITIES:

A. READINGS

1. Review methods books, teacher source books, teacher's manuals, etc.
2. Study "Effective Teaching Techniques for General Business," which is attached.

B. ACTIVITIES FOR CLASSROOM PRACTICE

1. In small groups, discuss the advantages and disadvantages of some of the more significant methods and activities.

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. Assist the cooperating teacher with teaching activities such as planning field trips, arranging for speakers, planning debates, etc.
2. Observe different methods and activities in your teacher assisting situation.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Plan and give an oral presentation or demonstration on a learning activity such as field trips, etc., approved by the instructor. This presentation will be done individually, will be approximately 5-10 minutes in length, or
2. Prepare a short paper on a learning activity or teaching method. Make duplicate copies for members of the class.

EFFECTIVE TEACHING TECHNIQUES FOR GENERAL BUSINESS

1. UTILIZING STUDENT EXPERIENCES*

Since all the students enrolled in general business have had experiences that are related to the work of the course, there is no reason why the course content should seem remote to them. On the contrary, their experiences can be tapped in order to vitalize the classroom situation. Regardless of the unit we attempt to teach, there is a wealth of student experience on which we can draw. The alert teacher recognizes this fact and is sufficiently resourceful to take advantage of it.

There are several educational values involved in utilizing student experiences:

Arousing student interest. The work is meaningful to the students when they realize that the content relates to things that have been happening to them or to matters that are close to them. Students thus identify themselves readily with the course and its content. They're in the act!

Maintaining student interest. By giving new interpretations of students' daily business experiences and imparting deeper significance to them, the teacher can maintain student interest. Ordinary activities in which the students acquire economic understanding, when they see the larger forces at work. Moreover, when instruction revolves about problems that are within the range of their experience, students are attentive and eager to share in the solution of problems. Thus, they learn in a co-operative atmosphere rather than dawdle in a negative or hostile atmosphere.

Employing the psychological approach. Laws of learning follow a psychological pattern; on the other hand, the organization of the usual syllabus and the structure of the average textbook generally follow a purely logical arrangement. Recourse to student experience in the orientation to a unit and its development provide the psychological fulcrum needed to steer the course in the direction of student learning.

The lesson starts with a daily experience and, before the students realize it, a transition is effected into some phase of the work that is new to them. The teacher thus proceeds subtly from the familiar to the unfamiliar, from the students' daily world to the world of business.

Establishing rapport. Dealing with common, everyday experiences makes the students feel at home; as a result, they enjoy a feeling of confidence and satisfaction that encourages them to be active participants in the reorganization of their experiences. When they feel at home, there is good rapport between the teacher and the class; and when good rapport prevails, effective learning is sure to follow.

*Reprinted Courtesy of Business Education World Magazine, Gregg/McGraw-Hill, October, 1961

Practicality of the work. In lessons that are built around student experience, there is a tendency to free oneself from the confining effects of the textbook's sequence and language. Since book learning is logical, it differs radically from the psychological pattern of the world of everyday experience. The textbook's organization is stratified and impersonal; student experiences are personal. Student experiences are part of the students; the textbook is apart from them.

The experience approach may serve many purposes. Student experiences can be used to motivate a new lesson; they can also serve as springboards for instruction in economic understanding of common business practices and procedures that function in their daily lives, help in the appreciation of the relationships involved, and facilitate the acquistion of knowledges and skills that will make them intelligent consumers of goods and services.

In addition to using daily experiences in his motivating situations, the resourceful teacher will draw on such experiences for the other phases of a well-rounded lesson, which include class practice work, oral discussions, summaries, application problems, review; he may even draw on them for evaluation of student learning.

The experiences most often called into play will be personal experiences of the students and those of their friends or members of their families. They may be drawn from life at home, at school, in play groups, in their neighborhood contacts or in dealings with any of the social institutions.

The students' lives have not been carried on in a vacuum, and the general business content we seek to teach does not exist in a vacuum. The two forces have impinged on each other for a long time. It requires very little imagination and research to cull various daily experiences that are closely related to the work in general business and to use them effectively to expedite maximum learning and growth.

A random listing of 100 daily situations that are commonly experienced by students follows as an indication of the sources one can tap. The reader can easily fill in several hundred additional situations that will help vitalize the classroom experience for teacher as well as students.

100 TYPICAL STUDENT EXPERIENCES THAT CAN BE UTILIZED BY THE TEACHER OF GENERAL BUSINESS

BANKING

1. Handling money
2. Being paid by check
3. Trying to cash a check
4. Losing a paycheck
5. Having a check "bounce"
6. Making a deposit in the bank
7. Receiving a bank statement that shows a balance at variance with that of the checkbook
8. Receiving a check with the name of the payee misspelled
9. Having a creditor ask for payment of a bill that has been paid (in cash)
10. Writing a check, but failing to enter it in the checkbook

BUYING WISELY

11. Buying school supplies
12. Purchasing lunch at school
13. Shopping for mother at the neighborhood grocer's
14. Buying a back-to-school wardrobe
15. Returning a gift to the department store
16. Reading newspaper ads
17. Buying articles that have been glowingly described on radio and TV
18. Reading labels on canned goods
19. Observing trademarks on packaged articles
20. Purchasing an item by mail

BUDGETING

21. Handling of student allowances
22. Planning parties
23. Making a budget for the ball team or teenage club
24. Family spending of the paycheck
25. Planning a trip
26. Making proper use of one's time
27. Planning a long-term purchasing program of hi-fi records
28. Budgeting one's TV viewing schedule
29. Examining the school's general organization budget
30. Reading about the national budget

CREDIT

31. Borrowing money for the purchase of lunch
32. Borrowing 5 cents or 10 cents toward bus fare
33. Getting home deliveries of milk at 5 a.m.
34. Purchasing utilities--electricity, gas, telephone
35. Buying on credit from the corner grocer
36. Parents making a loan at the bank
37. Buying household appliances, a TV set or a car on the installment plan
38. Observing ads that say, "Buy Now--Pay Later"
39. Buying on credit at department stores, using parents' charge plates
40. Parents borrowing money at income tax time

SAVINGS AND INVESTMENTS

41. Experiences with a piggy bank
42. Having an account in the school savings bank
43. Setting aside money regularly for the purchase of a desired article
44. Parents having savings accounts
45. Father's purchase of savings bond
46. Depositing money in a Christmas Club
47. Having interest added to a savings account
48. Home purchases by parents
49. Relatives' purchase of stock in the company that employs them
50. Investing in a mutual fund

INSURANCE

51. Loss of school textbooks by students
52. Sight of a fire destroying a building
53. Witnessing an auto accident
54. Reading accident reports in the newspapers
55. Experiencing death in one's own family or in a neighbor's family
56. Discovering that a neighbor's home has been burglarized
57. Learning that a friend's auto insurance has been canceled
58. Loss of family income because of illness of the breadwinner
59. Arrival of Social Security check for grandmother
60. Father's purchase of a life insurance policy

TRAVEL

61. Student's daily ride by bus or subway to and from school
62. Travel to work after school hours
63. Trip downtown for shopping
64. Trips with school groups to museums, etc.
65. Visit to out-of-town relatives
66. Being with the family on a vacation trip
67. Seeing someone off at a bus terminal, railway station or airport
68. Seeing or using traveler's checks
69. Observing commercial planes flying overhead
70. Membership of parents in an automobile club

COMMUNICATION

71. Sending a letter to a friend
72. Sending off gift packages by mail
73. Mailing an important document
74. Having a letter returned because of poor addressing
75. Paying "postage due" on a letter received
76. Buying a money order
77. Calling a friend on the telephone
78. Looking up a telephone number in the directory
79. Making a long-distance call to a brother in the armed forces
80. Sending a telegram

TRANSPORTATION

81. Using a moving van
82. Using self-carting devices, such as a U-Haul Agency
83. Having a trunk shipped by Railway Express Agency
84. Buying an item from a catalog and having it shipped
85. Returning household appliances to an out-of-town manufacturer for repair
86. Observing trucks used for local deliveries
87. Observing a long train of freight cars move at a set hour each day
88. Seeing trailer trucks used in interstate shipments
89. Observing tugboats hauling freight barges
90. Observing steamboats in harbor

KEEPING PERSONAL RECORDS

91. Keeping a school notebook, separated into sections
92. Using the card catalog in the school or public library
93. Keeping a ready-reference listing of telephone numbers
94. Keeping a record of homework assignments
95. Keeping a record of earnings (and deductions) for income tax purposes
96. Acting as treasurer for a club
97. Hunting for birth certificates, Social Security cards, insurance policies, savings books, paid bills
98. Operating a checking account
99. Retaining cancelled checks
100. Keeping household records

2. MOTIVATING LEARNING THROUGH PROBLEM SITUATIONS*

The skillful teacher can utilize problem situations in every phase of the lesson. Whether it's a question of creating a need for learning an entire unit or only one lesson within the unit or a question of presenting new information or providing practice materials to reinforce the learning of the new topic, problem situations are an effective means for realizing our instructional goals.

The foregoing generalization applies to the entire area of general business; it can truly be said that the degree to which the classroom teacher avails himself of problem situations is an index of the degree to which he arouses and maintains student interest.

How does the teacher who believes in the problem approach handle the evolution of the work in his class? In the first place, he does not announce the topic of the day. Instead, he presents a problem situation to his class as a springboard for their disucssion that sets the stage for the work of the day.

For example, in introducing the unit on savings, some teachers announce, "Today we are going to take up a topic that is very important to all of us--that is, the question of saving." The adherent of the problem approach, on the other hand, does nothing of the sort; he believes that his insisting that a topic is important does not register with the class. After all, they consider him a prejudiced witness to whom all topics in general business are important. Instead, he starts the lesson with a very brief problem, such as the following: "Your mother had a birthday last month and you wanted to buy her a present, but unfortunately your expenses for the month were so high that you simply did not have enough money left for the gift. How could you have spared yourself the embarrassment and your mother the disappointment?"

It needn't be Mother; a friend can be substituted. It needn't be a birthday present; some other need for money can be substituted. The main point to be served by the problem used is the desirability of setting aside money systematically well in advance of the date it will be needed, and any problem situation with human interest that will make this need manifest will serve the purpose of motivating the study of the new topic.

The topic of bank statement reconciliation can be brought closer to the students by this simple problem situation: "Your mother's checkbook shows a balance of $214.27, yet the bank statement arrives, indicating a balance of

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*Reprinted Courtesy of Business Education World Magazine, Gregg/McGraw-Hill, November, 1961.

$318.50. Who is correct--Mother or the bank? How big a check can Mother write without having it bounce?" A lively discussion is sure to follow. Moreover, when fortified with several addtional facts, the teacher can use this very problem for the preparation of an actual--and meaningful--bank statement reconciliation.

Illustrating Credit

The matter of credit can be brought close to the student by the problem situation that is faced by a classmate who has lost his lunch money. The discussion that follows, if steered properly, will invariably lead to consideration--or better still, to application--of the bases for extending credit. It is a short step to transfer from the basis for extending individual student credit to the basis for extending credit in the business world. Under such conditions, the "3 C's" of credit do not have to be given to the students; instead, they are deduced from the discussion that follows.

Another problem situation that might be employed in the teaching of credit is: "You are the owner of a small grocery store. One of your steady customers enters the store, makes her selection and, as she is about to pay for her purchase, discovers that her wallet has been stolen from her purse. She has no other money with which to pay for her purchase. What would you do?"

In the ensuing discussion, the class would be asking various questions of the teacher--questions that would shed light on the advisability of letting the customer have the goods on the strength of a mere promise to pay at a later date. In short, they would be going through the investigatory and decision-making phases of the work of the credit department of a modern business establishment. The wise teacher can easily point out to his class that all the weighing and considering that they went through in connection with the dilemma of the steady customer who is temporarily out of funds is illustrative of what a business firm does when it is confronted with an application for credit.

The topic of insurance might be introduced with this problem situation: "Mr. and Mrs. Albert Lorenz went out shopping. On their return, they noticed fire engines down the street. As they walked a bit further, they discovered that their home had burned down. What might Mr. Lorenz have done to protect himself against such a heavy loss?"

The meaning and function of a postal tracer registers far more effective through a problem situation than they do through the lecture method. "You mailed a package two weeks ago to Henry Smith, 123 Lincoln Drive, Chicago, but the package never arrived. What can you do at this point?" The topic of the postal tracer was purposely selected since it is obscure and minute, but sufficiently important to the student as a consumer to be worth treating--and sufficiently important to leave a lasting impression with the student when presented psychologically.

The study of the telephone can be motivated through the simple problem, "You're downtown shopping and cannot get home in time for supper. What would you do to prevent your family from worrying needlessly?" Instead of telling the class about person-to-person calls, the teacher might present the problem situation in which "You desire to contact your uncle in Chicago and do not wish to waste the cost of the call. What would you do in order to make certain that you reach him?"

For teaching the sending of money by telegram, this problem situation has been used with success: "Your brother is stranded out of town without funds. How can you get money to him immediately?"

The use of the classified directory can be motivated by presenting this problem: "A water pipe bursts at home and is in need of immediate repair. How would you locate a plumber?"

To teach the use of traveler's checks,the following problem situation might be employed: "You are about to go away on a one-month trip. How much money will you require?" The correctness of the answer is not so important as the thought that some acceptable medium of exchange is required. The answer will inveriably lead to the posting of the problem, "You do not wish to carry large sums of money. Since you are unknown at the hotel (or in the place you will be visiting), no one will cash your check. How will you be able to manage financially?"

Many Applications

Problem materials need not be confined to the introducing of a new topic. They can be utilized most effectively in any other phase of the lesson. Drill or practice materials are more meaningful when presented in terms of problem situations. These brief problem situations focus the learning goals before the class: "Suppose you received a check with your name misspelled, what would you do?" "What would you do if you lost your paycheck?" "You are interested in buying a hi-fi record player. How would you go about deciding which make to get?" "You have an important document for mailing. How would you send it with the utmost assurance that it will not get lost in the mail?"

Even the arithmetic practice that we believe students should have in the general business class assumes meaningful proportions when presented by means of the problem approach. Instead of asking the class for the cost of mailing 83 letters at 4 cents each, the teacher makes the work more palatable when he employs the problem approach in this manner: "You were elected secretary of your junior high school's graduating class and are now faced with the problem of sending out a meeting notice. If there are 83 members in your group, how much money will be required to send out the meeting notice?"

Problem situations can also serve as vehicles for effective summarization at the end of the lesson. A limited number of examples will suffice.

At the close of the lesson on the purposes served by banks, one brief question, "What would happen if all the banks of our town were to shut down?" presents the problem to the students so vividly that they cannot help but point out in summary fashion the distinct value of banks to any community.

The various forms of credit can be elicited from the students and compared through the use of the following problem situation: "Your TV set is quite old; repair bills have been high lately, and results do not seem to justify any further investment in the set. You would therefore like to buy a new set, but you simply do not have enough money to pay for it in cash. What courses of action are open to you?" Having learned about credit, students are now in a position to compare the merits of buying on a charge account, buying on the installment plan, borrowing the money from a bank and buying the set for cash, and the several other methods that are possible.

By way of summary of insurance, the teacher can pose this problem to the class: "Henry Jones and his wife, Mary, are in their late twenties, have two children, and own their home and automobile. What insurance program would you recommend to them?" Of course, the teacher should be ready to supply additional information concerning the family income and financial obligations as these are requested by the students.

Instruction in savings and investments can be followed with a problem situation along the following lines: "Assume that a cousin of yours is married and in his early twenties. By careful management, he has saved $2,500. In what way might he invest this money?" The teacher can then vary the question by increasing the amount available for investment.

Comparison of various modes of travel can result from such a problem situation as: "Your family is planning to go off on a month's vacation next summer. What modes of travel might they use? Under what circumstances would each method be used?"

Insofar as possible, the problems presented should deal with named rather than nameless people and should refer to the local scene rather than nowhere or some distant place--unless the remote place is needed to provide a touch of realism to the problem.

3. CONDUCTING DISCUSSIONS*

Group discussions in the general business class are effective because they provide opportunities for the students for self-expression, sharing, reasoning, persuading and weighing of alternatives. Group discussion is, in effect, democracy in action; every point of view is heard, even that of the minority, and is given an opportunity to confront other points of view and, at times, prevail over them.

Here are a number of pointers that will guide the teacher in his conduct of the discussion period.

Draw on student experiences. This is one of the most effective ways of keeping the discussion on the students' level of interest. The more the students identify themselves with the work at hand, the more they share in the discussion of a problem and the more effective the solution will be.

Get the students to speak. We can hardly call it a discussion when the teacher does all the talking. Getting the students to speak may be difficult, but that's no excuse for not trying to obtain student participation. A monologue by the teacher will not result in the give and take of two-way communication nor in intercommunication within the group, which is the basis for the crystallization of a group point of view.

Get all the students into the act. This is probably the most difficult aspect of the conduct of discussions. Students who are shy, retiring and withdrawn manage to shrink back quietly--often unnoticed--while their more outgoing classmates hold forth. They have something to offer, though, and should be encouraged to participate. It is necessary to draw them casually or subtly into the discussion, not only for the contribution they may offer to the group, but also for their own personality growth.

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* Reprinted Courtesy of Business Education World Magazine, Gregg/McGraw-Hill, December, 1961.

Do not allow a small minority to monopolize the floor. In every group there are some who consume an unwarranted portion of the time expounding their views; in a class period this type of behavior is particularly dangerous since time is limited and excessive discussion by a few students means the crowding out of the ideas of many other students and a failure to develop the communication potential of these others. The time waster can be called to a halt with the comment, "Very good, Henry; now let us hear what Joe has to say."

Get all points of view presented. Inject, by way of question, a point of view that may be overlooked. The teacher who has perfected his conduct of discussions is quick to notice, by their facial expressions, students with points of view that differ from those being presented; he readily draws these students into the give and take of group discussion.

Have students stick to the question or topic being discussed. The mark of the trained speaker or intelligent conversationalist is that he adheres to the question being discussed; his remarks are not disgressive or desultory. The ability to discuss without rambling or wandering from point to point is to be developed in young people--and the proper conduct of the discussion period will provide training in sticking to the point.

Get students to respect differing points of view. Students should learn that various points of view are to be reckoned with. Moreover, they are to treat each other civilly; the comment to a dissenter, "Oh, you're dumb!" or "You're crazy," is uncalled for; it is undignified and undemocratic. Students must learn to engage in discussions in a dignified manner; they should be trained to deal with each other on a rational basis and not to have recourse to emotional outbursts.

Avoid protracted discussions. Interesting though it may be, any discussion that is protracted consumes so much time that some of the work is not covered and student learning suffers.

Give the class an opportunity to arrive at a decision at the close of the discussion. Failure to do so leaves everthing in mid-air. The skillful teacher helps the class in arriving at consensus in those areas where there is agreement, in resolving the points of difference where possible and in recognizing points of departure for individual reactions.

Guide the discussion, but do not dominate it. This is probably the most important point the teacher should bear in mind if he wishes to obtain maximum group participation that is productive of maximum social interaction, which, in turn, yields maximum student development. This requires training, patience and self-control, since truly significant results are not attainable overnight.

Using Discussion Questions

Not every question is a discussion question; nor does the word, "discuss," necessarily introduce a discussion question. For example, the role of banks in our economy, "will *not* bring about the desired response. "What would happen if all our banks closed down?" however, will evoke a significant discussion.

The former version is too bookish; the manner in which it is presented makes it too remote from student experience. The latter version is functional; it is related to the students. In discussing what would happen if all the banks closed, the students see boldly the services rendered by banks together with implications for our economy.

Let us take another example. "List the four (or three, or seven) functions of a savings bank" is the type of question frequently asked, yet the question is of no consequence since it calls for a meaningless cataloging of facts that appear insignificant.

Instead, "What does the savings bank do with all the money it receives from the public?" poses an interesting problem to the class. Invariably, the first response is, "They put it away in huge safes." This gives the teacher the opportunity to ask, "Then how much does the bank charge us for putting away our money in huge safes and watching it for us?" This sets the students thinking and they reply, "The bank doesn't charge us anything; in fact, it pays us interest on the money we leave with it." This is exactly what the teacher wishes to hear, and he follows up with the question, "Then why should the bank pay us for watching our money?" In the lively discussion that ensues, the students indicate the various activities of or services rendered by the savings bank; moreover, they indicate all of this in a functional, practical setting.

One further illustration should serve to drive home the point that while the content or coverage of a traditional question may not differ from that of a discussion question, its phrasing and point of emphasis certainly do.

All will agree that the requisites of good personality constitute an important area of study and that questioning along these lines is very much in place. Very few realize, however, that instruction in this area can often assume the aspects of sermonizing and that questioning in this area can be trite. Although it can be productive of the so-called "proper" answer, it will be one that represents mere lip service without any change in behavior or attitude. That is the very reaction that the question, "What are the requisites of good personality?" will evoke. And converting the question into, "Discuss the requisites of good personality (or good character)" will not be any improvement.

"Which personality trait do you consider the most important?" is a somewhat better phrasing; it will bring about a modicum of discussion. But better still is the question, "What people rub you the wrong way?" The question, startling because it is personal, immediately starts a train of thought in the students. The teacher should make it clear early in the discussion that no names are to be used, that all that is wanted is a description of certain qualities or traits that cause an unfavorable impression.

A question of this type will evoke vigorous responses from the members of the class; even the most inarticulate will make his contribution to the discussion. The skillful teacher will carefully elicit key words here and there from the discussion and write them on the chalkboard for all to see. It is a very short and simple step to obtain a summary from the students, "Then what traits do we find objectionable in others?" And it is a shorter step to, "Suppose we ourselves were to possess these traits, how would people feel about us?" This in turn would be followed by the question, "Therefore, what traits or qualities do you feel we should possess in order to be liked by people?"

4. DIRECTING PROJECTS*

Essentially, the idea of project teaching stems from a philosophy of education that subscribes to the principle that many interrelated learnings result from the students' engaging in a purposeful activity. In its earlier connotation, the project was intended to integrate learnings from several subject areas.

For example, the class may decide to run a bazaar for the local Red Cross chapter or for the local hospital. Students discuss when and where to hold it; this brings into play democratic procedures. Questions that invariably arise are: "Who will head the bazaar?" "How much of an admission fee should be charged?" "How will merchandise be obtained for the bazaar?" "What merchandise will sell?"

Much discussion ensues, during which students share experiences and exchange arguments--intelligently rather than heatedly. Various subject areas are called into play. The letters to be sent out provide practice in English and typewriting; the floor plan to be drawn up for the various displays calls for the application of principles of art design; the booths to be provided call for the use of arithmetic in the determination of the quantity of lumber and other supplies needed--and in computing their cost.

The purchase of the materials and the preparation of the posters, circulars and newspaper releases provide learning situations in budgeting, wise buying, banking, communications and the keeping of records in a functional situation. In addition, various students are afforded the opportunity to explore their special interests and to express themselves in terms of their special talents; much learning and growth go on purposefully in a meaningful setting.

The actual conduct of the project provides a stage for the development of personality, places the students in situations that call for the exercise of proper ethical conduct and provides them with an opportunity to be of service to others. In addition to the planning of significant activity, students participate actively in the realization of the plan. They get the opportunity to work with others of differing backgrounds toward the realization of a common goal. In the unfolding of the project, they see various parts of a larger job as contributing toward the unified whole.

The teacher is present but serves solely as consultant, as expediter, all ideas emanate from the students and are executed by them. In this type of setting, students truly develop the qualities of leadership, teamwork, resourcefulness, respect for others and the ability to see a job through to satisfactory conclusion.

The project described is a fairly extensive one. Not all projects need be that pervasive; there are many purposeful activities that can be engaged in and that are confined largely to the subject matter of general business. A number of these will be described.

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In connection with the Banking unit, the general business students can run the checking account for the school cafeteria or for the school store. In this project, students would perform all duties incidental to the banking of the cash. They would handle the bank deposits, including the wrapping of the money and preparation of the deposit slip; they would keep the checkbook and reconcile the bank statement. A project of this kind provides a wealth of economic understanding in addition to ideal practice on the many skills connected with the unit under study.

All the above--or any segment of it--can be utilized for class activity, committee concentration or individual exploration.

In connection with Budgeting, most teachers have been having students keep a personal budget for a week. Very few, however, have had their students keep time budgets, little realizing that the principles of budgeting are equally applicable to the wise utilization of time. Still fewer teachers have had their classes utilize budgeting principles in the preparation of a budget for the baseball team or in planning a class party or a class trip.

In the study of Wise Buying, the preparation of a Comparison Shopper's Report provides much practice in elementary research of a practical nature. This type of activity lends itself admirably to an individual project in which the student selects a product of particular interest or appeal to him, explores the question of what to look for in the purchase of the particular article, prepares a checklist that incorporates the various buying points, examines specific brands and evaluates them in his report. A project of this kind affords the student much practice in reading advertisements, examining and interpreting labels and making decisions in an objective manner.

The preparation of a Buyer's Guide can be a natural outgrowth of the research on individual consumer goods. A project of this kind would call for the pooling of individual findings and editing by a committee.

In the unit on Credit, a study suggested by the title "Comparing the Cost of Credit" would call into play an examination and comparison of the various loan services that are available to the consumer. It would indicate the various credit facilities and would show in simple terms the total cost of an article bought under each of the credit plans that can be put in operation.

"Rewriting the Installment Contract" might prove of interest to a number of students; it certainly should appeal to those with a superior linguistic background. The participants in a project of this kind would have a splendid opportunity for creative expression; the rest of the class would have before them an installment contract that was rewritten in an intelligible manner.

The philosophy behind Insurance, as well as its workings, becomes more meaningful through the organization of a Class Insurance Club that will indemnify students for the loss of their textbooks--a very simple project that parallels on a small scale what the the insurance companies do on a large scale.

The extensiveness of insurance coverage that is possible can be appreciated through the project, "A Gallery of Prominent People and the Insurance They Should Carry." The students would compile a list of people who are outstanding in various walks of life and would indicate for each the type of insurance that is peculiarly suitable to his calling or profession. For example, Jascha Heifetz would insure his violin and his hands; Frankie Avalon, his voice; Ray Bolger, his legs; Elizabeth Taylor, her face; and Jimmy Durante, his nose.

In the study of Savings, the students might operate the School Savings Bank--or organize one, if none exists at the school. A project of this kind gives the students an opportunity to open a savings account, to make deposits regularly--as a matter of habit--and to make withdrawals as the need arises. Saving with a purpose and for a purpose is still a worthy objective of thrift education.

Where a project of this kind is not feasible, the teacher can be instrumental in having the individual students open their own savings accounts at a mutual savings bank and watch the money grow.

Try an Investment

Insofar as the unit on Investing is concerned, the making of an imaginary investment in the stock market, following the security's activity in the daily reports of stock market transactions and culling the daily financial pages for news items concerning the corporation in which the student has "invested"--all these are effective means for getting him to study the stock market over a sustained period of time.

Better still is the actual purchase of one share of stock by the class as a whole. The decision to invest can be the outgrowth of the study of corporate organization or of the unit on Investing. The decision is followed by a discussion of how to invest. This in turn leads various students to investigate different securities, to explore the history of the enterprises issuing these securities, to compare the respective yields of the several stocks, to predict the future demand for the products marketed by the few corporations being analyzed.

Students also explore the question of growth stocks vs. income stocks--a very real question that is faced by adult investors, yet one that can be dealt with by the general business students at their own level of understanding. Students examine the share of stock when it arrives and feel that they have a stake in American industry; they begin to read the financial pages avidly and exchange financial news among themselves in the same casual but interested manner in which they discuss the performance of their favorite ball team in the most recent game. The announcement of a stockholder's meeting arrives, as does a dividend check, and students discuss whether they should hold the stock or sell it and buy some other stock. In short, they are pursuing on a miniature, but very real, scale what the average investor does on a full scale.

In the Communications unit, students operate the school switchboard. This type of activity is best carried on by means of a schedule of rotation that assures coverage of the switchboard for the entire school year. The intricacies of the switchboard as well as the rules of telephone courtesy are thus learned through practice rather than talked about.

In the unit on Travel, students can plan a trip. This can be an individual or a group project that calls into play the comparison of routes, accomodations, conveniences and costs of the various means of travel. An ideal trip--for purposes of educational experience--would be one that combines all modes of travel. Correspondence by students with various agencies and the preparation of itineraries should enrich the project to a considerable degree.

The unit on Keeping Records can be vitalized through the development of a Club Recordkeeping System. This type of project provides meaningful experience in systematic entry work and simple accounting for funds received.

Another significant project--one that will be of great help to the teacher and that will expedite the work with future students--is bringing the objective materials file up to date. It is both a form of housekeeping and a form of review. All too frequently, a teacher's efficiency is impaired by an accumulation of "materials to be filed." And the more the file grows, the more frustrating is the attempt to bring order out of chaos. Consequently, a specific project devoted to getting our house in order at a stated time each year helps provide the teacher with files in which all materials are accessible.

An interesting project that has much guidance value is the Career Booklet. In a project of this kind, each student or committee treats one individual calling, indicating the reasons for one's possible interest in the field, financial and other rewards to look forward to, difficulties to be faced in the chosen career and the opportunities for advancement.

In addition, mention might be made of several projects that are worthy of exploration because they cut across several topics. These are activity units along the following lines: "Buying Your First Car," "Owning Your Own Home," and "Taking a Trip." Each of these activities calls into play a number of content items that are usually subsumed under several topics. These activities can therefore rightfully be called integrating units.

For example, in "Buying Your First Car," subject matter is drawn from the areas of buying, credit, banking, insurance and keeping records. In the unit "Owning Your Own Home," the subject-matter areas already enumerated are utilized, and in addition we have budgeting, investment, savings and taxation. In the "Taking a Trip" activity, the following areas are called into play: travel, banking, buying, budgeting, savings, communications, credit, insurance and record-keeping.

The subject matter in any one integrating unit need not overlap or duplicate that which appears in the others. Creative imagination and judicious direction can make one activity unit supplement the others with the thought that knowledge will evolve spirally from one stage or level to another.

Not to be overlooked is the enthusiasm that is engendered in the students when they are at work on projects. Such enthusiasm enlivens the classroom and heightens class morale far above the pedestrian level that characterizes the class that plods through the time-worn paces of the traditional class recitation period.

5. PREPARING POSTERS*

Posters can help in realizing the objectives of an educational program. They can be used to create a pleasant, attractive atmosphere in which to work.

There are many varieties of posters. Some will have appeal for a few days, some for the duration of a unit, while others may have long-term appeal and be useful for a month or two. There is no hard and fast rule as to the length of time a poster should be on display. Its value to the class should be the determining factor. As long as a poster is pertinent to the work being done, it should remain up.

Criteria for Posters. Any poster used in the classroom should arouse interest in order to deliver its message. The message should be brief and serve to reinforce learning. Your poster should be aimed at the students and related to their work and should make a point without being ponderous.

Materials. White or colored poster paper, 30 inches by 24 inches, together with a felt tip marking pen, is all that is required. For a wider range of effects, water colors or India ink may be used. The marking pen is the easiest and safest to use as there is no chance of spilling or smearing.

Using pictures cut from magazines can reduce the amount of drawing necessary. In addition, colored paper can be used as the background and finished with a border of colored masking tape. The result is a professional-looking job on a minimum of artistic ability.

Doing an Artistic Job. With a little careful planning your poster can have a polished look. Plan both the idea and how you intend to have the poster look before you begin work. A rough sketch, giving both layout and spacing, will avoid mistakes during the execution of the poster.

Keep the lettering in proportion to the size of the poster and don't try to squeeze in too many words. A few words have more impact.

The body of the poster should be balanced, lettered in a uniform style, uncluttered and neat. If you use colors on your poster, make sure that they harmonize. Colors that clash can make even the best of posters unpleasant to look at.

Classroom tips. The teacher should not overlook the opportunity for student participation in the planning and preparation of posters. Such a creative effort by the student should be encouraged and recognized. It is an effective way to have the students share the learning experience and to have them make a tangible contribution. This can be done on an individual or class basis.

The possibilities for subjects of posters are endless and depend only on the imagination of the teacher and the class. The addition of a few posters to a room and a unit under study can be a welcome change of pace.

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* Reprinted Courtesy of Business Education World Magazine, Gregg/McGraw-Hill, February, 1962.

POSSIBLE POSTER TOPICS

You and Business Life

1. From producer to consumer. Pictures showing the different stages in the production and distribution of goods.
2. Forms of business enterprise. A chart showing the various types of business organization.
3. The American standard of living. The factors that have served to raise our standard of living.
4. Basic Business Activities. An overview of activities in the business world.

Banking

5. If the banks closed down! A description of the needs of the community that would not be met.
6. Forms used in banking. A display, in sequence, of banking forms and their purposes.
7. Travels of a check. The life history of a check from the time it leaves the checkbook until it arrives in the cancelled check file.
8. Types of checks. A series of checks, each different, yet all alike.

Buying Wisely

9. Labels tell the story. A display of labels with key words underscored or encircled.
10. By their trade names ye shall know them. A collection of trademarks to illustrate how common they are.
11. Protecting the consumer. A presentation of governmental and independent agencies and the service they render the consumer.
12. The wise consumer. The picture story of sound buying habits.

Budgeting

13. How to budget. Basic guides in the preparation of a budget.
14. My budget. A typical teen-ager's budget.
15. These budget--Do you? Illustrations of companies, government, and school organization budgets.
16. Would you rather be? Parallel illustrations of the happy budgeteer and the haphazard buyer.
17. Getting a loan. How and where a consumer can get a loan.
18. Instruments of credit. Several forms accompanied by brief descriptions of the purpose of each one.
19. Your charge account. A montage of charge account forms.
20. The joys and sorrows of an installment buyer. Several pointed cartoons.
21. What we insure against. Pictures or drawings of hazards covered by insurance.
22. Who is the best risk? How a risk is judged and the types of jobs that can and cannot be insured.
23. Protection against risk. How insurance works to protect the insured.
24. Types of policies. A montage featuring several types of policies and stressing the key words of each.

Savings

25. How money grows. A table of periodic savings with interest added.

26. Forms used in savings. The pass book, forms and other savings bank material.

27. Savings make a difference. Two drawings showing the contrast, "Joe purchases a watch" but "Henry watches the purchase."

28. Savings banks put your money to work for you. A pie chart showing how savings-bank funds are invested.

Investing

29. Your share in American Industry. A collection of forms having to do with stock ownership.

30. Owning your own home. The joys and sorrows of home ownership, in pictures.

31. What to look for in investment. What makes a good investment.

32. The ways to invest. The methods of investment and how we put money to work.

Communication

33. Communication through the ages. A pictorial survey.

34. Letter for mailing. Diagrams of how to fold a business letter for mailing.

35. Using the telephone properly. A series of pointers on good telephone manners.

36. Communicate with your neighbors. The methods that people use to communicate with each other, from bongos to tom-toms, including radio, television, magazines and newspapers.

37. From wheels to wings. An illustrated history of travel.

38. How to get there. The means of travel between places, showing the time and cost by each method.

39. Time variations. Showing the east-to-west movement of time zones. Four painted clock faces set for each of the four time zones would be helpful.

40. To enjoy your trip. Pointers to assure comfort and peace of mind while traveling.

Transportation

41. Bringing the world to your door. The familiar products from around the world and how they have been brought to this country.

42. Shipping goods. Showing the many ways in which goods are shipped.

43. When shipping goods. How to protect what you ship from damage in transit.

44. Freight in the world of tomorrow.

Keeping Useful Information

45. Information wanted? An illustration of a reference shelf.

46. Files-files-files. What files are, and how they are kept.
47. How to file. Some simple rules of filing.
48. A system saves time. The advantage of being organized.

Guidance

49. Eyes on office employment. The opportunities open in business office employment.
50. What employers look for. An interview rating sheet.
51. Wanted. A want ad from a newspaper stressing the things that employers are looking for in an employee.
52. Your stairway to success. Illustrate the steps to success in business. Character, education, appearance are a few suggestions for the steps.

6. MAKING USE OF DRAMATIC ACTIVITIES*

Much student interest in general business can be generated through dramatic activities. Students simply love to act. The inspiring teacher can get them to give vent to the dramatic impulse either to illustrate a point or to portray a behavior situation.

Dramatic activity used to illustrate a point is a form of audio-visual aid in which several students through their actions present some business procedure, such as opening a checking account, negotiating a loan or applying for a job. Such acting is a substitute for mere verbal descriptions of what is done in the business community.

Dramatic activity that portrays a behavior situation is essentially an application of the projection technique, in which students assume certain roles, immerse themselves in the roles and by their actions indicate the degree to which they understand the people they are portraying. The manner in which they do so tends to show them social biases (in the broad sense of the term).

The truly effective dramatic activities are those that are student planned and student interpreted. The teacher who recognizes this basic truth will be rewarded with a rich experience; the one who overlooks it will find that the student response is very poor.

Since the dramatic activities that can be carried on vary considerably, no uniform method of handling this technique can be presented. A certain basic approach can, however, be outlined.

First, and foremost, the teacher should recognize that the conduct of dramatic activities requires an atmosphere of its own, one that is free from the restraint that characterizes the traditional teacher-dominated class recitation period. Second, and no less important, dramatic activities should not be overdone.

Some dramatic activities are spontaneous and unrehearsed; others, although they are spontaneous, are discussed by the participants before presentation; still others call for a careful writing of the script and a rehearsal by the cast.

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Some of these dramatizations are intended to be presented before a topic is taken up; others during the course of the development of the topic; still others as culminating activities after the class has dealt with the topic.

Such activity cannot be engaged in desultorily; careful preparation is necessary. Yet the planning that is called for differs markedly from the planning that is identified with the usual lesson preparation. Teacher planning here involves exploration in depth, a searching inquiry into the situations that lend themselves to dramatic activities.

At best, a rough, sketchy outline of the plot is all that the teacher should suggest; the rest is up to the students--even the matter of modifying the plot beyond the teacher's recognition. After all, no teacher who is appreciative of the value of the creative impulse in the development of young people will want to stifle their expression.

In some cases, a student committee might compose the skit, which will reflect research and discussion on their part. On the other hand, many of the dramatizations will be presented as improvised interpretive offerings on the basis of student knowledge and understanding of the processes and procedures encompassed by the unit of work.

Even though the committee selects the students who are to do the acting, the teacher may, in the role of consultant, offer suggestions that arise from a desire to draw various types of personalities into the work. The alert teacher will not overlook opportunities to challenge the bright, engage the outgoing, help the slow and attract the withdrawn. Moreover, youngsters who are hyperactive can be led to expend their energies in worthwhile activity before they begin acting up in the classroom.

Role playing calls for the actor's understanding of the mindset of the person who is being portrayed rather than a memorization of specific facts. The actor's manner, words and actions will invariably reflect the degree to which he can put himself in another's shoes.

When the dramatic presentation is based on a skit written by a committee, each actor should be provided with a copy of the entire playlet, so that he can preview it and understand the entire play before he begins learning his lines. A rehearsal in a corner of the room might be appropriate. Memorization is hardly necessary; it is rarely worth the effort. A rendition of the ideas in the actor's own words or a reading of the lines will serve the same purpose and will spare the students the drudgery of memorization. Moreover, the spirit of the script is the important thing. Students should feel free to depart from the script and improvise--in fact, when they do so they are often at their best.

Dramatizations might be followed by having the students engage in a question period or a discussion about the faithfulness of the portrayals of the various rules. A brief description by committee members of some of the difficulties they had to iron out will add an interesting touch and will contribute toward establishing a greater degree of rapport within the class. In addition, a word of judicious praise from the teacher will give recognition to the students involved and will lay the groundwork for similar future participation.

Banking

1. Bartering Your Way Through Life. Students act out various situations in which they effect exchanges and run into the difficulties that are peculiar to barter as a medium of exchange.

2. Opening a Checking Account. A bank official is approached by a person who knows nothing about checks. The answers to the questions posed by the interviewer result in his opening a checking account and filling out the various forms. Several other people appear, each with questions peculiar to his needs and bearing on the type of checking account he is about to open.

3. Cashing a Check at the Bank. Several people attempt to cash a check. The person who is known at the bank has very little difficulty; the stranger is asked all kinds of questions and is required to identify himself.

4. Stopping Payment on a Check. A troubled depositor approaches the bank manager with his problem: He has lost a check that he wrote the day before. The bank official helps him out of his predicament.

5. Setting Up a Clearing House. A number of students act as bank messengers delivering checks to banks on which they were drawn. One of the messengers hits on the idea of having all messengers meet at one designated spot, such as a centrally located cafeteria, and interchanging the bundles of checks at this one location.

6. Auntie Mame's Adventures with a Checking Account. This type of dramatization lends itself to humorous touches, depending on the creativeness of the students. In it can be portrayed the experiences of the careless person who issues checks indiscriminately and forgets to enter some of them in her checkbook--with repercussions that vary with the ingenuity of the members of the student committee writing the skit.

Buying Wisely

7. Planning the Family Budget. Members of the family enter into a discussion as to how the family income should be apportioned--a combination of business procedures and democracy in action.

8. A Fool and His Money Are Soon Parted. A radio skit in which a recent graduate falls for all kinds of sales pitches the day he gets his first paycheck and finds himself without funds for the rest of the week.

9. To Buy or Not to Buy That TV Set. A family discussion, with Mother favoring the repair of the old TV set and Father maintaining that it's cheaper to buy a new one. A friend comes along and summarizes for them the advantages and disadvantages of each course of action. The play offers no solution to the problem, but the class is asked to do the deciding in the light of the facts presented.

10. Making Change. A demonstration of the proper procedure for making change.

11. Buying a Transistor Radio at a Sale. A real bargain turns out to be a bad buy--no returns or refunds allowed.

12. Wise Buymanship. A script that deals with the buying habits of Mr. Gullible and Mr. Careful.

Credit

13. An Embarrassing Situation. A regular customer selects her articles of food at the local grocer's and is about to pay for her purchase when she discovers that her wallet is gone. The storekeeper is forced into a situation where he is required to make a decision as to whether the customer may take home her contemplated purchase or whether the goods should be returned to the shelves.

14. *Shall We Open a Charge Account*? A Family discussion on the question, with various differing points of view aired and a decision arrived at.

15. *Opening a Charge Account*. An enactment of the interview with the Credit Department. Some of the questions asked lead to the retort, "Why do you have to ask such personal questions?" The answers give the audience an insight into our credit structure.

16. *"No Cash Required*." The lure of "no cash required" is explored by a customer who discovers that invariably the credit price is considerably above the cash price.

17. *Applying for a Loan*. Enactment of an interview at a personal loan company.

18. *Mr. Gullible Buys Everything--on the Installment Plan*. A happy-go-lucky consumer who is seen buying everything in sight--at$10 down, $5 a week--is suddenly converted into a not-so-happy person when one item after another is repossessed because he cannot meet his weekly payments.

Insurance

19. *A Difficult Prospect*. An insurance agent is confronted by a prospect who voices all kinds of objections to taking out a life insurance policy.

20. *What Insurance Coverage*? Members of a family who are about to purchase a house discuss the kind of insurance they should carry in the light of the various risks they face.

21. *Taking Out an Insurance Policy*. Specific questions being asked of the agent or broker, answered to the applicant's satisfaction; also, the questions asked by the insurance salesman at the appropriate turn of events.

22. *Selling a Child's Education Policy*. The usual resistance to insurance demonstrated in the father's reaction to various selling points advanced by the life insurance agent.

23. *I Want to Know*. Various types of people ask the insurance agent about policies that meet their requirements.

24. *Shall We Cancel the Policy*? A role-playing situation in which members of the family discuss whether the insurance policy should be dropped because of adverse conditions at home.

Savings and Investments

25. *Manana*. A thoughtless, indifferent person agrees that saving is a wonderful thing, but he keeps postponing the opening of a savings account to the tomorrow that never comes. In the meantime, various friends who did save are able to enjoy the fruits of their savings while he is struggling through life.

26. *Opening a Savings Account*. Going through the various phases of opening an account at a savings bank, including the answering of questions put to the applicant by the bank teller and the filling out of specimen forms.

27. *How Dad Got the Money to Buy Our Home*. A family round-table discussion that encompasses savings, mortgages and--invariably--questions concerning upkeep.

28. *How Shall We Invest Our Surplus Funds*? A family discussion in which various members argue about savings banks, savings and loan associations, stocks and mutual funds as the most desirable type of investment.

29. *Right from the Horse's Mouth*! An investor gets a "hot tip" on a "sure thing" and invests his money without investigating.

30. *Shall We Rent or Buy a Home*? Students project themselves into a family discussion on the important questions that should precede the purchase of a home.

Communication

31. If Letters Could Speak! A playlet in which pieces of mail complain about their sad plight because of carelessness on the part of their senders.

32. The Family That Discontinued Its Telephone Service. The telephone proved most annoying, so Father had it removed; then everyone missed it.

33. Telephone Courtesy. Different do's and don'ts are acted out.

34. I Can't Ever Get to That Phone! A parent complains about the teen-ager who monopolizes the phone--and a solution is worked out to the satisfaction of all members of the family.

35. Placing a Long-Distance Phone Call. The handling of the call is enacted. (It should be noted that, with the application of the direct-dialing system to most parts of the country, this type of dramatization is fast becoming obsolete.)

36. Find It in the Yellow Pages. A skit that drives home the point that the Yellow Pages (or Classified Directory) is the best current reference work for help in locating any type of business establishment. It can be made humorous by one who has a flair for such treatment.

Travel and Transportation

37. How Shall We Spend Our Vacation? Members of the family discuss vacation plans and agree on their itinerary.

38. A Travel Agent Meets the Family. Various members of the family obtain answers to their questions concerning their projected trip and engage in a discussion of the pros and cons of the possible modes of travel.

39. Comparing Costs of Travel. Each of several students represents a different mode of travel and furnishes information to those who inquire about his medium.

40. A Travel Agency Furnishes Information. Several information clerks answer questions by prospective travelers concerning accomodations and services.

41. Renting a Car. Students act out the rental of a car in a city in some other part of the country, asking the appropriate questions and filling out the necessary forms.

42. Wrap Properly. A boy arrives at the post office with a package. The parcel is rejected by the post-office clerk because it is improperly wrapped. A discussion between the post-office clerk and the boy deals with the reasons for the requirement concerning proper wrapping.

7. TELLING STORIES*

A good anecdote is an effective way to hold an audience. For a teacher, a good story is an interest-arouser and, if it is well selected, can drive home a point and provide the students with an added peg on which they could hang their new knowledge.

Many types of stories can be injected into the work of the General Business class, ranging from anecdotes concerningprominent individuals to personal experiences of the teacher. Whether the stories are real or fictitious, humorous or sad, good stories have common characteristics:

They relate to the work. If they do not, they will divert attention from the material to be covered and waste time.

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* Reprinted Courtesy of Business Education World Magazine, Gregg/McGraw-Hill, April, 1962.

They follow naturally. A story should not be forced, not should it require an elaborate introduction.

They are brief, since classroom time is scarce.

Their pertinence should be obvious so that the students are able to draw the necessary conclusions on their own, without requiring explanation from either teacher or classmates.

They are not preachy. Each story should contain a message, but the message should be subtle.

When these standards are met, we will have an audience that is interested in the work and is receptive to learning. The story itself is an informal way for the students to learn some of the course material.

Sample Stories

A number of stories are presented as being indicative of one of the ways in which the instructional program in General Business can be made more lively.

Relating a personal experience that proved embarrassing is always certain to arouse interest. A case in point is the story told by a former student in one of my courses.

"While working as a bookkeeper, I was asked by my employer, 'How much is my bank balance?' I turned to the check book and replied, '$350.' "

"Shortly afterwards, I went to lunch. When I returned, there were three detectives waiting for me. They took me to the police station and questioned me about what I had done with my employer's $1,200. I protested, but the questioning continued until one of the detectives came out with the question, 'You yourself admitted to your boss this morning that the balance is $350. . . You are the only one who handles the firm's money . .look at this!' He handed me a copy of the bank statement that had arrived while I was out to lunch and, according to it, my employer's balance was $1,550. Then he asked triumphantly; 'What did you do with the $1,200?'"

"I had to do a good deal of explaining. In fact, it was more than explaining to prove that you can't go by a bank statement. My innocence was established; my boss apologized and never made a similar accusation again."

This personalized account, supplemented by several thought-provoking questions, serve as an effective motivating device for the teaching of the bank reconciliation statement.

Another story that may be of interest is told by an accountant about a client of his whose entire batch of forty checks bounced. "Why did the bookkeeper issue the checks if there wasn't enough money in the bank?" I asked.

"The accountant replied, "There was enough money to cover these checks."

"Then why did the checks bounce?"

"Because," my friend replied, "my client had hired a new girl for the office. On her first day on the job, he had instructed her to prepare these checks and send them off as fast as possible, all of which she did. She made the checks out and signed her own name instead of having the boss sign them."

Another version of the same story is about the corporation president who received a series of telephone calls from irate creditors asking why they had not been paid. Some threatened to suspend credit, while others talked of suing. In the excitement that followed, the boss' new private secretary spoke up somewhat timidly, informing everyone that she remembered preparing the checks, getting them ready for the boss' signature and filing them away. She had forgotten to mail them.

Another story about banking deals with the experience of the vice-president of a New York City bank. He gave his new secretary a $100 bill and asked her to get it changed. An hour later she returned still holding the bill.

"How did you make out?" he asked.

"I've been to every store on the block, but nobody will change it for me."

What the poor girl forgot was that she worked in a bank.

The ingenuity of several English messenger boys is the basis of the story of the founding of the first clearinghouse.

Years ago, each bank would send out messengers, each presenting checks to the banks on which they were drawn. One day a weary messenger stepped into a coffeehouse, in London, to rest. Looking up, he noticed another messenger doing the same thing. The two fell to talking and soon discovered that each was heading for the other's bank.

They decided to exchange bundles and save themselves much chasing around. The idea worked so well that they continued similar daily meetings at the coffeehouse. Before long, word had spread to other bank messengers. Soon many messengers were meeting at the coffeehouse to exchange their bundles of checks.

Bank officials soon learned of this practice. Some objected, but before long they had taken up the idea and designated an official place where all banks could clear their checks. Thus was born the first clearinghouse.

Morgan the Yachtsman

When you talk about budgeting, a story about J. P. Morgan might be interesting.

John Pierpont Morgan, the famous financier, made it a practice to take a daily walk on the country road. One of his new neighbors approached him one day, introduced himself and the two began talking. The topic of yachts came up and Morgan's neighbor said, "I understand that you own a yacht, Mr. Morgan."

"Yes, I do." Morgan replied.

"How much does it cost to run?" his neighbor asked.

"Why do you ask?" Morgan inquired.

"Because," his neighbor replied, "I am interested in buying one."

"My good man," said Morgan, "if you have to ask how much it costs to run a yacht, my answer is: Don't buy one!"

The story of the origin of the Diners' Club is one that interests students. On a February evening in 1950, a New York City credit specialist named Frank McNamara worked late in his office and decided to have dinner before going to his home on Long Island. He went to a restaurant, ate a hearty meal and, when he had to pay for the meal, he found that he did not have enough money with him. McNamara called his wife, who drove in from their home to rescue him from washing dishes all night.

The next day McNamara mentioned the incident to his lawyer and commented, "It's too bad there isn't some way a person wouldn't need money in a restaurant. What happened to me could happen to anyone." Out of this conversation was born the Diner's Club, an organization that makes it possible for a member to eat anywhere in the world and charge it.

To prove the value of saving, there is the classic story of the $5,000 that Benjamin Franklin gave to the city of Boston in 1791, with the understanding that it not be touched for 100 years. At the end of that time the money had grown to $400,000.

With the money, Boston built the Franklin Union Building for a technical school and then put the remaining money, $92,000, aside for another 100 years. By 1950 that amounted to nearly $1,000,000.

There is even an interesting story about how insurance was born.

Many years ago, several British shipowners would meet in Lloyd's Coffeehouse. From time to time one of the shipowners would hear that his ship had been lost at sea, and he would be ruined.

Eventually one of the shipowners suggested; "Our business is a particularly dangerous one. If our ship comes in we are rich. If the ship is lost we are paupers. Why can't each of us put a small sum, representing a proportionate share of the value of his cargo, into a common treasure? If one person's ship is lost, he can collect, from our common treasury, the amount of the loss. That way he will not be ruined."

The idea caught on, and so Lloyds of London, the world's best-known insurance company was born.

The need for being careful when sending a telegram can be illustrated by the story of the salesman and the mink coat.

A salesman with a new product was on the road. He wrote home one evening about the fine prospects for sales. His wife read the letter and, thinking of his substantial commissions, told him of a $3,500 mink coat on sale for $500.

The salesman wired home at once, making his ideas on a mink coat quite plain. Then he finished his trip, getting just enough orders to make his expenses.

Imagine the salesman's surprise when he arrived home to find his wife wrapped in a new mink coat.

"What's this?" he demanded.

"The new mink coat you said I could buy," his wife replied.

"What are you talking about," he asked, "I said 'Buy nothing--stop--too expensive."

"What are you talking about?" his wife replied. "Here is the telegram I got: 'Buy--stop--nothing too expensive.' "

Somebody goofed.

Our business world abounds with stories and anecdotes. Newspapers and popular magazines publish many each week. The teacher with an eye for them, and a system for filing them, will discover numerous stories and will have them around for the right time.

Story telling is an excellent motivating device. But it is only a means to an end. It is just one method of stimulating greater interest in the work. It is not to entertain the students and it should not be overdone. The occasional story is desirable, but too many may tend to divert attention from the main purpose of the classroom.

8. CONDUCTING FIELD TRIPS*

One of the most effective ways of getting the students to understand how business ticks is to take them to see a business in operation. Such a field trip is far more instructive than talking, or reading, about business activities. Through visits to businesses, the students see the classroom in action.

Visits to business do not just happen. They must be carefully planned. That is the key to a successful visit.

Before deciding on a field trip, the teacher should be aware of its purpose, which is to provide the students with an educational experience. What the students see, hear or do is to be related to the work in general business class. If this connection is not clear, the time and money will be wasted. The relationship is best if it is obvious and the visit is of immediate value to the class. This can be done by timing a trip to fit in with the unit being studied at that time.

Arrangements should be made in advance. This includes all parties concerned--the school, the business, the parents and transportation.

Advance planning should include checking the school calendar to avoid conflicts with examinations or other events that might require the students to be on the school grounds. It will also reduce the likelihood that the firm you wish to visit will be able to have your group on the day you wish. It is wise, too, to let the parents know well ahead of time so that they can plan accordingly and be spared the worry when their children are not home at the normal hour.

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* Reprinted Courtesy of Business Education World Magazine, Gregg/McGraw-Hill May, 1962.

Ideally, the students should be interested in making the trip because of the work they are doing in class. The decision on which of several types of businesses to visit can be arrived at democratically. The students can also handle many of the details of planning the trip.

One committee of students can arrange getting the school's permission for the trip. Another committee can make the arrangements with the business to be visited and arrange the time. A third committee might make the arrangements for transportation. The students should also try to figure in advance the expenses of the trip.

The students will get more out of the trip if it is well planned. If it is not timed well, it will be just a wasted day. Preparation will make the difference.

The teacher should make a quick preview of the trip. This will provide firsthand information on what to expect during the tour. This will give the teacher the chance to see where the emphasis of the tour should be placed and what to touch on lightly.

If the teacher knows about the company and its products, he will be able to brief the students on what to pay particular attention to. A short film or committee report on the things to look for on the trip will provide a sound foundation.

The teacher might provide the students with background materials to read before the trip. The class could prepare a questionnaire or check list for use during the tour.

The class discussion that precedes the tour might suggest specific questions that should be asked of the company's representative. The teacher will find that such preliminary discussion clarifies the purpose of the trip and helps focus attention during the visit. Without such preparation, the trip is liable to lack a clear focus--and the importance of the trip will be lost.

To assure smooth working of the trip with the minimum of confusion, some details should be attended to some time before the trip. All the work done by the committees must be reviewed by the teacher to be sure that all these steps have been done correctly. School sanction, transportation, acknowledgement from the company and parental approval slips must all be checked to be sure that each step is completed.

The teacher must also determine the size of the group. The company may have some objection to too large a group. Several copies of the roster of students making the trip should be prepared and ready for use on the day of the trip.

It would help to have a schedule for the day's activities. This timetable is a good guide and helps to budget time more effectively. This will give the students and parents an idea of what time they can expect to return home.

Since a mobile group is not as manageable as a group in the classroom, it would be a good idea to get some help. One or two adults--parents, student-teachers or friends--are usually happy to co-operate. These arrangements should also be made in advance. It would be helpful, too, if these adult leaders were briefed in advance on their duties and the type of trip they would be participating in.

The students should be told how they are expected to behave and what dress is expected of them. Both dress and behavior make a strong impression on the host company and on the type of reception that you receive. The students will usually co-operate, because they do not want to lose the chance of future trips.

Several days before the trip, a final check should be made on all details. In addition, the teacher should make arrangements with the school administration for the supervision of those students who are not going.

The teacher should be the first to arrive at the departure point. Using the check-off list, he should check the names of the students as they arrive. Plan to wait a few extra minutes for the latecomers.

During the day, try to keep the group together. There is less chance of losing one or two of your students that way. The teacher should keep his eye open to see that none of the students do wander off. Frequent head counts are also helpful. The more quickly you know that a student is lost, the faster efforts to find him can begin.

It is a good idea for the teacher to mix freely with the students. It is easier to get to troublemakers this way and to spot when some of the students are getting tired.

The teacher should be able to expect the students to behave during the trip. To insure this, it would be a good idea to warn them to respect the rights and property of others. This is a good chance to show them that good conduct and a good time can go together.

The tour should not try to cover too much ground. If too much is attempted the impression will be a blurred one and some of the value of the trip will be lost. The teacher should avoid dominating the scene. At no time should he usurp the role of the company's guide. The students should ask the guide all the questions, and they should be permitted to see and hear for themselves. The teacher might point out something to those near him at the moment if it is of particular interest.

At the close of the visit, the teacher should remember to express his personal thanks to the tour guide.

After the Trip

The next class meeting is important if the class is to get the full value of the trip. The class will want to talk about the trip, and an informal discussion and evaluation will help in explaining things that some of the classes may have missed. Try to tie the trip to the material being studied.

Before the matter slips from the teacher's mind, a report of the trip should be filed with the school administration. It is also the teacher's responsibility to see that all the outstanding bills have been paid and that the parental consent slips are filed for future reference in case any question or litigation arises.

The class should send letters of thanks to the host company. Not only is this good manners, but it insures your being welcome in the future.

Unit	Places to be Visited	Purpose
World of Business	A bottling plant	To see mass production
	A wholesale fruit market	To see truckloads of fruits & vegetables unloaded, sold to retailers and shipped
Money and Banking	A local bank	To observe the operations of the various departments, deposits being made, checks being cashed, applicants for credit being interviewed
	Money museum	To see the different kinds of money that have been used
	Clearinghouse	To observe the clearing of checks
Buying Wisely	Testing laboratory of a department store	To see how various products are tested scientifically
	Two department stores	To compare prices, merchandising policy and store tone
	A supermarket	To study the general arrangement of merchandise, flow of store traffic and check-out counters
Using Credit Service	Credit department of a department store	Processing of credit accounts
	Billing department of a department store	Behind-the-scenes activities relating to charge accounts
	Mercantile agency	To see how credit information is kept up to date
Insurance	Main office of an insurance company	To observe various departments and facilities
Savings and Investing	Local savings bank	To see behind-the-scene operation
	Stock brokerage firm	To see orders being placed for the purchase and sale of securities, transactions reported on the ticker
	Stock exchange	To see how securities are bought and sold
Travel	Railroad station	To see the general layout, announcement of arrivals and departures and trains being serviced
	Bus terminal	To see frequency of arrivals and departures, the many routes buses travel and the purchase of tickets

Continued

Unit	Places to be Visited	Purpose
	Airport	To see the sale of tickets, incoming and departing flights, checking in of passengers, handling of baggage and the servicing of aircraft
Communications	General post office	To see scope of its activities, especially how mail is processed
	Telephone company	To observe behind-the-scenes-activities of the central exchange
	Telegraph office	To see outgoing messages transmitted and incoming messages received and dispatched
	Newspaper plant	To see the speed with which news is transferred from reports to the printed page
Transportation	The waterfront	To see the quantity and variety of goods that are loaded and unloaded
	Railway express agency	To see the different types of articles that can be shipped and how they are handled
	A factory located at a railroad siding or on a harbor	To see how location facilitates transportation of supplies to the factory and finished goods from the factory

9. DIRECTING COMMITTEE WORK IN THE CLASSROOM*

Teaching by means of committee activities is a direct outcome of the sociological influence in education. Sociologists have observed that young people learn as a result of the social interaction that characterizes the face-to-face contacts of the play group. They have also pointed out that significant behavioral changes result from the influences at work in the informal friendship group and that such influences often make more of an impact than all other social institutions on individual personality.

Group procedures, or the committee method, in teaching are ways of bringing into the formal atmosphere of the classroom the interactional influences of the informal friendship groups.

All of this means learning the play way, but learning nonetheless.

Group or committee activities involve working with people of varying backgrounds. Students work with their peers on an area of common interest. Even though the students might have varying abilities, each pursues his talents does his own research work and reports to the committee. The committee members in turn check and challenge one another and pool all their findings into a committee report to the entire class. Such activities provide the students with experience in democratic living and lead to a better understanding of other people.

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* Reprinted Courtesy of Business Education World Magazine, Gregg/McGraw-Hill, June, 1962.

Organizing the Committees

The success of the committee method depends to a large degree on the composition of the various committees. It is therefore necessary to exercise great care in the formation of the committees and a good deal of patience in their orientation.

Because of the intimacy of contact, the size of the committee is to be considered carefully, since the larger the committee the smaller the degree of social interaction. On the other hand, the existence of too many committees makes classroom management difficult. As a general rule, three or four committees--ranging in size from five to eight members-- is the ideal number that can be organized within any class. Beyond that, the situation becomes unwieldy.

Each committee should possess variety in the composition of its membership. All the following factors might serve as the basis for the staffing of committees: intelligence, abilities, interests, ethnic background, social maturation and leadership traits.

When no committee has a preponderance of any student type and the committee members complement one another, no single individual or group is stigmatized, students have the opportunity to exercise leadership and each student gets to see that everyone has something to offer toward the realization of the group's objectives. The teacher is therefore to guide the students in their selection of committee personnel.

When each committee has its share of gifted students, all have the stimulation of the few select. Under conditions of diverse abilities and interests within each committee, proper leadership and ability to follow can be nurtured.

As a matter of procedure, the first order of business within any committee should be the election of its chairman and secretary, the leaders who will be in charge of the planning by the committee and those to whom the rest of the class will look as spokesmen for the committee. No leader should be imposed on them. Students might as well learn the practice of democratic elections in their committee activity, even if decisions are shaped by popularity rather than capability.

An orientation of the entire class to the unit of work is definitely called for before breaking up the class into committees. The orientation helps the students obtain an over-all view of the unit as the frame of reference for the activities of the several committees that are to be organized. Following such an orientation, the students see the total fabric and are in a position to select the phase of the unit that would interest them and to confine their exploration to that phase.

For example, in the unit on insurance, a lesson or two might be devoted to the basic ideas common to all forms of insurance and a broad outline might be developed on the various risks covered by insurance. Committees might be organized to handle these various forms. One might deal with automobile insurance, another with life insurance, a third with fire insurance and a fourth with other types of insurance.

Each committee works on its own during class time, and it is at liberty to consult with any other committee or with the teacher. At the appointed time, it reports its findings or conclusions to the class. Each committee chairman presides for his committee's report, presents an introductory statement and calls on each member to deal with one part of the report. Questions by the class are invited.

Not all committee reports need to be formal in nature. Some committees might prefer to present a panel discussion, debate or dramatization. An ambitious committee might even prepare a skit or an assembly program. Originality in committee reporting will evolve as students grow used to the idea.

The Teacher's Role

The teacher's role in committee work is that of a guide. He should never attempt to dominate the scene or to dictate any course of action to any of the committees.

The teacher should see that the work is distributed equitably among the several committees. Unless students possess facility in group procedures, the teacher should help initiate each committee. This requires the providing of worthwhile activity to the portion of the class that hasn't yet been initiated into its committee's assignment. This will insure that all the students are busy instead of wasting time.

The teacher should make available various materials for use by committees, train them in methods of research and keep in touch with the progress of each committeee to make certain that it does not wander off the topic.

The teacher should provide for maximum social interaction by encouraging a permissive atmosphere. At the same time, he is to make certain that the students do not mistake liberty for license, since very little progress can be made when disciplinary problems predominate.

The teacher should circulate from group to group, making certain that each group sees purpose in what it is doing and that the work is geared to the level of the respective group. He should actually participate in their deliberations, discussions and activities. Such participation is an effective way to keep informed of their progress. It calls for an even distribution of a teacher's time and impartial diffusion of attention. It is highly important that no committee feel it is being neglected and thus lose its enthusiasm. Occasionally, but not often, the teacher might reassemble the class and treat them as one unit.

In moving about the class, the teacher is to be particularly aware of the social climate within each group, to see to it that all students are treated fairly by the other committee members and that no committee member is being overlooked, that each is making his contribution to the committee and that each one of the group is afforded an opportunity for self-expression in concordance with the group welfare. He should be particularly on the look-out for personality problems that might arise in the informal atmosphere of the committee.

The goals of committee activity are to have the students work together harmoniously, assume responsibility for performing a set task, share in seeing that task through and in the course of all of their activity to become self-reliant.

Unfortunately, this does not happen overnight--particularly when committee work is new to the students. Until proper attitudes toward committee activity are developed, until proper work habits are established, the teacher is to be particularly vigilant in his supervision of the class.

In the first place, he is to observe the over-all spirit within each committee and to see whether committee members are working harmoniously. He should be quick to discern personality clashes and should step in to heal any breach during its earliest manifestation, before it can become aggravated. Toward this end he should, diplomatically, prevent the domination of any committee by one or two students or the unequal distribution of the work load within the committee.

Disciplinary Problems

Disciplinary problems are likely to develop in the early stages of committee activity and, if not traced to their source, might prevent the successful continuation of committee work. It is, for this reason, desirable to have social controls established in the early stages of committee activity and to make certain that every individual's abilities and talents are being utilized. Very few individuals excel in all areas. Some students excel in one area, others in another. One student possesses special ability in writing, another in public speaking, a third in art, a fourth along mechanical lines. There is a distinct need for recognizing the special capabilities of each student and capitalizing on these, so that each will enter wholeheartedly into the committee activity.

The teacher of experience realizes that any student who is not challenged will lose interest and will either sit back and let all the others do the work or discover other activities, frequently antisocial ones, with which to occupy his time.

There is also the danger of tangential exploration on the part of the committees. This is due to the immaturity of the students and can be overcome only by the type of intellectual discipline that results from training and experience. Until students achieve this discipline, much of the tangential exploration by committees can be avoided by careful orientation as to the scope of activity of each committee and by the teacher's looking in frequently on the committees. Such informal visits provide him with an indication of the progress of each committee and offer him opportunities for channeling committees or individuals in the proper direction.

A certain amount of overlapping may manifest itself; although some measure of this is all right, the teacher should be aware of the loss of time that may result. He should not hesitate to step in and guide students in such matters. Some committees may require the assistance of the teacher in the organization of their subject matter; otherwise their work may be too haphazard. They will need guidance in the organization of their report to the class.

The matter of leadership presents some important problems. There is always present the danger that potential leaders may be overlooked or that those called upon to do the leading may be lacking in experience. Truly democratic principles dictate that each student be given an opportunity to serve as committee leader at one time or another; in this way, each student has an opportunity to lead and everyone gets to appreciate the problems of the leader. Lack of experience can only be overcome by experience, and there is no better place for obtaining experience than the classroom--under the patient guidance of the teacher and the sympathetic understanding of fellow students.

Values Resulting

With the proper functioning of group procedures in the classroom, many educational values should accrue. These values fall into two categories: (a) purely individual benefits and (b) the benefits that accrue to the class.

Individual gains would show in both intellectual gains and social development. Under the committee method there is a greater degree of self-reliance. Students develop the ability to find information through personal investigation of source materials rather than relying on the teacher for information or direction. The committee method encourages the exercise of initiative, provides practice in working independently, and permits a greater concentration of effort in a particular area. Through continuous evaluation by fellow students in the committee, each student develops the ability of self-evaluation.

Learning Task 28

EVALUATION PROCESSES UNIQUE TO BOOKKEEPING

PROBLEM AREA: What are some of the evaluation techniques which are unique?

PERFORMANCE OBJECTIVES:

1. Identify at least five techniques of evaluation for bookkeeping teaching and learning.
2. Prepare an evaluation instrument to measure the achievement of bookkeeping students in some major part of the bookkeeping cycle.

PREREQUISITE(S): None.

LEARNING ACTIVITIES:

A. READINGS

1. Review Evaluation Learning Task from Spiral I.
2. Review the discussions of testing and evaluation in the teacher's manuals and source books for bookkeeping.
3. Read Chapter 10 of Methods of Teaching Bookkeeping--Accounting.
4. Read Chapter 7 of Testing and Evaluation in Business Education by Hardaway.

B. ACTIVITIES FOR CLASSROOM PRACTICE

1. In small groups, discuss several evaluation techniques and identify the advantages and disadvantages of each.

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. With the permission of your cooperating teacher, help develop evaluation instruments for use in his/her class.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Construct and turn in to the instructor an evaluation instrument which tests both bookkeeping knowledge and skill.

Learning Task 30
EDUCATIONAL ACCOUNTABILITY FOR TEACHERS

PROBLEM AREA: The teacher or prospective teacher has a number of critical problems related to the question of "What kind of teacher am I going to be?" The answer to this question has an obvious relationship to the decision each student or teacher makes as to the types of skills which will be learned or developed.

PERFORMANCE OBJECTIVES:

1. By the end of the task, each student should be able to specify, in general terms, the types of skills which he has selected for self-emphasis during the remainder of his NUSTEP learning experiences.
2. By the end of the task, each student should be able to identify five educational trends which are of importance in evaluating the skills he has chosen as being of importance for his own self-growth.

PREREQUISITE(S): Completion of Spiral I and all subject matter tasks assigned for Spiral II.

LEARNING ACTIVITIES:

A. READINGS

1. "Why Teachers Fail."
2. "Changes and Trends..."
3. "Accountability: Questions to Think On."

B. ACTIVITIES FOR CLASSROOM PRACTICE

1. Participate in a class discussion of "Why Teachers Fail" and "Changes and Trends..."

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. Using the questions posed in "Accountability: Questions to Think On," select five skills which you wish to learn or develop for your own self-growth and relate them to probable developments in education. Prepare your answer in written form.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Discuss your written paper prepared for "C" with your proctor and develop an agreement for learning experiences to be completed during the remainder of the semester.

WHY TEACHERS FAIL

Introduction

Most of your learning experiences in the NUSTEP program up to this point have been concerned with traditional, orthodox classroom management skills. Your experiences have been designed to develop pre-instructional skills, i.e., to provide you with a set of entry-level skills in preparation for learning about the instructional process.

The remainder of your learning experiences in NUSTEP should be aimed, hopefully, at the development of higher levels of instructional skills. Such a goal raises, however, a number of important questions:

1. Since there are so many approaches to teaching and instruction, which instructional approaches are most important for the prospective teacher's knowledge and mastery?
2. How can the prospective teacher decide which instructional approaches are most valuable?
3. Are some approaches better for some individuals because of unique personality variables while not appropriate for other individuals, i.e., is there a criterion for deciding which approach is the "best method?"

In the article which is reproduced below--B.F. Skinner's "Why Teachers Fail"--try to answer the following questions:

1. From Skinner's analysis, why would it seem that 'apprenticeship methods' of training teachers are likely to produce limited or ineffective skill development?
2. Skinner says, in effect, that the failure of schools is due mainly to a preoccupation with aversive controls. In the schooling experiences you have had, what kinds of aversive controls result in undesirable outcomes, why are these strategies retained by teachers?
3. According to Skinner, what are the weaknesses of each of the following popular alternatives to traditional aversive control strategies:

   A. The "Show and Tell"
   B. "Getting the Learners' Attention"
   C. "Socratic Questioning"

4. What is the "Idol of the Good Student"?

WHY TEACHERS FAIL

B.F. Skinner

The most widely publicized efforts to improve education show an extraordinary neglect of method. Learning and teaching are not analyzed, and almost no effort is made to improve teaching as such. The aid which education is to receive usually means money, and the proposals for spending it follow a few familiar lines. We should build more and better schools. We should recruit more and better teachers. We should search for better students and make sure that all competent students can go to school or college. We should multiply teacher-student contacts with films and television. We should design new curricula. All this can be done without looking at teaching itself. We need not ask how those better teachers are to teach those better students in those better schools, what kinds of contact are to be multiplied through mass media, or how new curricula are to be made effective.

Perhaps we should not expect questions of this sort to be asked in what is essentially a consumer's revolt. Earlier educational reforms were proposed by teachers - a Comenius, a Rousseau, a John Dewey - who were familiar with teaching methods, knew their shortcomings, and thought they saw a chance to improve them. Today the disaffected are the parents, employers, and others who are unhappy about the product of education. When teachers complain, it is as consumers of education at lower levels - graduate school authorities want better college teaching and college teachers work to improve high school curricula. It is perhaps natural that consumers should turn to the conspicuous shortcomings of plant, personnel, and equipment rather than to method.

It is also true that educational method has not been brought to their attention in a favorable light. Pedagogy is not a prestigious word. Its low estate may be traced in part to the fact that under the blandishments of statistical methods, which promised a new kind of rigor, educational psychologists spent half a century measuring the results of teaching while neglecting teaching itself. They compared different methods of teaching in matched groups and could often say that one method was clearly better than another, but the methods they compared were usually not drawn from their own research or even their own theories, and their results seldom generated new methods. Psychological studies of learning were equally sterile - concentrating on relatively unimportant details of few typical learning situations such as the memory drum, the maze, the discrimination box, and verbal "problems." The learning and forgetting curves which emerged from these studies were never useful in the classroom and came to occupy a less and less important place in textbooks on educational psychology. Even today many distinguished learning theorists insist that their work has no practical relevance.

For these and doubtless other reasons, what has been taught as pedagogy has not been a true technology of teaching. College teaching, indeed, has not been taught at all. The beginning teacher receives no professional preparation. He usually begins to teach simply as he himself has been taught, and if he improves, it is only in the light of his own unaided experience.

High school and grade school teaching are taught primarily through apprenticeships, in which students receive the advice and counsel of experienced teachers. Certain trade skills and rules of thumb are passed along, but the young teacher's own experience is to be the major source of improvement. Even this modest venture in teacher training is under attack. It is argued that a good teacher is simply knowledgeable in his subject matter and is interested in it. Any special knowledge of pedagogy as a basic science of teaching is felt to be unnecessary.

The attitude is regrettable. No enterprise can improve itself to the fullest extent without examining its basic processes. A really effective educational system cannot be set up until we understand the process of learning and teaching. Human behavior is far too complex to be left to casual experience, or even to organized experience in the restricted environment of the classroom. Teachers need help. In particular, they need help of the kind offered by scientific analysis of behavior.

Fortunately such an analysis is now available. Principles derived from it have already contributed to the design of schools, equipment, texts, and classroom practices. Programmed instruction is perhaps its best known achievement. Some acquaintance with its basic formulation is beginning to be regarded as important in the training of teachers and administrators. These positive contributions, however, are no more important than the light which the analysis throws on current practices. There is something wrong with teaching. From the point of view of an experimental analysis of behavior, what is?

Aversive Control. Corporal Punishment has always played an important role in education. As Marrou says, "...education and corporal punishment appeared as inseparable to a Hellenistic Greek as they had to a Jewish or an Egyptian scribe in the time of the Pharoahs. Montaigne's well-known description of punished children yelling and masters mad with rage is as true of Latin as it is of Greek schools. When the men of antiquity thought back to their school days they immediately remembered the beatings. 'To hold out the hand for the cane' - manum ferulae subducere - was an elegant Latin way of saying 'to study'."

The cane is still with us, and efforts to abolish it are vigorously opposed. In Great Britain a split leather strap for whipping students called a taws can be obtained from suppliers who advertise in educational journals, one of whom is said to sell 3,000 annually. (The taws has the advantage, shared by the rubber trunsheon, of leaving no incriminating marks.)

The brutality of corporal punishment and the viciousness it breeds in both teacher and student have, of course, led to reform. Usually this has meant little more than a shifting to noncorporal measures, of which education can boast an astonishing list. Ridicule (now largely verbalized, but once symbolized by the dunce cap or by forcing the student to sit facing the wall, scolding, sarcasm, criticism, incarceration (being kept after school), extra school or homework, the withdrawal of privileges, forced lab ostracism, being put on silence, and fines - these are some of the devices which have permitted the teacher to spare the rod without spoiling the child. In some respects they are less objectionable than corporal punishment, but the pattern remains; the student spends a great part of his day doing things he does not want to do. Education is in more than one sense "compulsory." If a teacher is in doubt about his own methods, he should ask himself a few questions. Do my students stop work immediately when I dismiss the class? (If so, dismissal is obviously a release from a threat.) Do they welcome rather than regret vacations and unscheduled days of no school? Do I reward them for good behavior by excusing them from other assignments? Do I punish them by giving them additional assignments? Do I frequently say, "Pay attention!", "Now remember," or otherwise gently "admonish" them? Do I find it necessary from time to time to "get tough" and threaten some form of punishment?

The teacher can use aversive control because he is either bigger and stronger than his students or able to invoke the authority of parents or police who are. He can, for example, coerce students into reading texts, listening to lectures, taking part in discussion, recalling as much as possible of what they have read or heard, and writing papers. This is perhaps an achievement, but it is offset by an extraordinary list of unwanted by-products traceable to the basic practice.

The student who works mainly to escape aversive stimulation discovers other ways of escaping. He is tardy - "creeping like a snail unwillingly to school." He stays away from school altogether. Education has its own word for this - "truancy" - from an old Celt word meaning wretched. A special policeman, the truant officer, deals with offenders by threatening still more aversive consequences. The dropout is a legal truant. Children who commit suicide are often found to have had trouble in school.

There are subtler forms of escape. Though physically present and looking at teacher or text, the student doesn't pay attention. He is hysterically deaf. His mind wanders. He daydreams. Incipient forms of escape appear as restlessness. "Mental fatigue" is usually not a state of exhaustion but an uncontrollable disposition to escape to other activities which, it is hoped, will also be profitable. The periods into which the school day is broken measure the limits of successful aversive control rather than the capacity for sustained attention. A child will spend hours absorbed in play or in watching movies or television who cannot sit still in school for more than a few minutes before escape becomes too strong to be denied. One of the easiest forms of escape is simply to forget all one has learned, and no one has discovered a form of control to prevent this ultimate break for freedom.

An equally serious result which an experimental analysis of behavior leads us to expect is that students counterattack. If the teacher is weak, the students may attack openly. He may be impertinent, impudent, rude, or defiant. His verbal behavior may be obscene or profane. He may annoy the teacher and escape punishment by doing so surreptitiously by groaning, shuffling his feet, or snapping his fingers. A "tormentor" is a surreptitious noisemaker especially designed for classroom use. Physical attacks on teachers are now common. Verbal attacks in the teacher's absence are legendary.

Counterattack escalates. Slightly aversive action by the teacher evokes reactions that demand severer measures, to which in turn the student reacts still more violently. Escalation may continue until one party withdraws (the student leaves school or the teacher resigns) or dominates completely (the students establish anarchy or the teacher imposes a despotic discipline).

Vandalism is another form of counterattack which is growing steadily more serious. Many cities maintain special police forces to guard school buildings on weekends. Schools are now being designed so that windows cannot be easily broken from the street. A more sweeping counterattack comes later when, as a taxpayer or an alumnus, a former student refuses to support educational institutions. Anti-intellectualism is often a general attack on all that education represents.

A much less obvious but equally serious effect of aversive control is plain inaction. The student is sullen, stubborn, and unresponsive. He "blocks." He refuses to obey. Inaction is sometimes a form of escape (rather than carry out an assignment, the student simply takes punishment as the lesser evil) and sometimes a form of attack, the object of which is to enrage the teacher, but it is also in its own right a predictable effect of aversive control.

All these reactions have emotional accompaniments. Fear and anxiety are characteristics of escape and avoidance, anger of counterattack, and resentment of sullen inaction. These are the classical features of juvenile delinquency, of psychosomatic illness, and of other maladjustments familiar to the administrations and health services of educational institutions. There are other serious disadvantages of aversive control. Behavior which satisfies aversive contingencies may have undesirable characteristics. It may be unduly compulsive ("meticulous" once meant fearful); it requires effort; it is work. The student plays a submissive role which is less and less useful as cultural practices move away from totalitarian patterns. Rousseau could complain further that scarcely more than half the pupils of his day lived to enjoy the blessings for which the pleasures of childhood were sacrificed. Fortunately that is no longer true, but the sacrifice continues.

Aversive methods also have effects on teachers. The young teacher may begin his career with a favorable attitude toward his profession and toward his students, only to find himself playing a consistently unfriendly role as a repertoire of aggressive behaviors are repeatedly reinforced. The prospect does not attract or hold good teachers. At times the profession has been tolerable only to weaklings or to those who enjoy treating others aversively. Even when moderately used, aversive practices interfere with the kinds of relations with students which make more productive techniques feasible.

In college and graduate schools the aversive pattern survives in the now almost universal system of "assign and test." The teacher does not teach, he simply holds the student responsible for learning. The student must read books, study texts, perform experiments, and attend lectures, and he is responsible for doing so in the sense that if he does not correctly report what he has seen, heard, or read, he will suffer aversive consequences. Questions and answers are so staple a feature of education that their connection with teaching almost never occasions surprise, yet as a demand for a response which will meet certain specifications, a question is almost always slightly aversive. An examination, as a collection of questions, characteristically generates the anxiety and panic appropriate to avoidance and escape. Reading a student's paper is still likely to be called correcting it. Examinations are designed to show principally what the student does not know. A test which proves to be too easy is made harder before being given again, ostensibly because an easy test does not discriminate but more probably because the teacher is afraid of weakening the threat under which his students are working. A teacher is judged by his employers and colleagues by the severity of the threat he imposes; he is a good teacher if he makes his students work hard, regardless of how he does so or how much he teaches them by doing so. He eventually evaluated himself in the same way; if he tries to shift to nonaversive methods, he may discover that he resists making things easy as if this necessarily meant teaching less.

Proposals to add requirements and raise standards are usually part of an aversive pattern. A well-known educator has written: "We must stiffen the work of our schools...we have every reason to concentrate on (certain subjects) and be unflagging in our insistence that they be really learned... Senior year (in high school) ought to be the hardest...(We should give) students work that is both difficult and important, and (insist) that it be well done...We should demand more of our students."

These statements were probably intended to be synonymous with "students should learn more" or possibly "teachers should teach more." There may be good reasons why students should take more mathematics or learn a modern language more thoroughly or be better prepared for college or graduate school, but they are not reasons for intensifying aversive pressures. A standard is a level of achievement; only under a particular philosophy of education is it a criterion upon which some form of punishment is contingent.

It is not difficult to explain the use of aversive control. The teacher can easily arrange aversive contingencies; his culture has already taught him how to do so. In any case, since the immediate effects are clear-cut, effective techniques are easily learned. When the control begins early and is maintained consistently, and particularly when it takes the moderate form of "gentle admonitions," by-products are minimized. Systems which are basically aversive have produced well-disciplined, obedient, industrious, and eventually informed and skilled students sometimes to the envy of teachers who cannot skillfully use the same techniques. Even the students themselves may be impressed and may return years later to thank their teachers for having beaten or ridiculed them.

Aversive control can be defended as "nature's way." In learning to turn a handspring, a child improves by avoiding bumps and bruises. The natural environment teaches a person to act in ways which resolve puzzlement or reduce the threat of not knowing. Why should the teacher not imitate nature and arrange comparable aversive contingencies, such as puzzling the student to induce him to think or making him curious to induce him to explore. But nature, as we shall see later, is not always an admirable teacher. Its aversive contingencies are not a model to be copied but a standard to be excelled.

Aversive contingencies also provide an opportunity for the student to learn to adjust to the unpleasant and painful, to act effectively when threatened, to submit to pain, but they are usually not well designed for that purpose. As Rousseau pointed out, a child may be taught to come with aversive stimulation, but the required contingencies are not easily combined with contingencies designed to teach other things.

Aversive control is no doubt sanctioned in part because it is compatible with prevailing philosophies of government and religion. It is not only the teacher who holds the student responsible for doing what he ought to do or punishes him "justly" when he fails. It is not only the failing student who is told that "ignorance is no excuse." Schools and colleges must, of course, share in the ethical and legal control of the societies which support them and of which they are a part, and they have comparable problems of their own to which aversive control has always seemed relevant but with their unfortunate by-products cannot be defined as necessary evils until we are sure that other solutions cannot be found.

Most teachers are humane and well disposed. They do not want to threaten their students yet they find themselves doing so. They want to help but their offers are often declined. Most students are well disposed. They want an education, yet they cannot force themselves to study, and they know they are wasting time. For reasons which they have probably not correctly identified, many are in revolt. Why should education continue to use the aversive techniques to which all this is so obviously due? Evidently because effective alternatives have not been found. It is not enough simply to abandon aversive measures. A Summerhill is therapeutic not educational: by withholding punishment teachers may help students who have been badly treated elsewhere and prepare them to be taught, but something else is needed. Tolstoy soon abandoned the school for the children of his serfs in which no child was obliged to go to school or, when in shcool, to pay attention, and similar experiments by the anarchists and by Bertrand Russell also failed.

Telling and showing. A child sees things and talks about them accurately afterward. He listens to news and gossip and passes it along. He recounts in great detail the plot of a movie he has seen or a book he has read. He seems to have a "natural curiosity," a "love of knowledge," and an "inherent wish to learn." Why not take advantage of these natural endowments and simply bring the student into contact with the world he is to learn about? There are practical problems, of course. Only a small part of the real world can be brought into the classroom even with the aid of films, tape recorders, and television, and only a small part of what remains can be visited outside. Words are easily imparted, but the verbal excesses of classical education have shown how easily this fact may lead to dangerous overemphasis. Within reasonable limits, however, is it not possible to teach simply by giving the student an opportunity to learn in a natural way?

Unfortunately, a student does not learn simply when he is shown or told. Something essential to his natural curiosity or wish to learn is missing from the classroom. What is missing, technically speaking, is "positive reinforcement." In daily life the student looks, listens, and remembers because certain consequences then follow. He learns to look and listen in those special ways which encourage remembering because he is reinforced for recalling what he has seen and heard, just as a newspaper reporter notes and remembers things he sees, because he is paid for reporting them. Consequences of this sort are lacking when a teacher simply shows a student something or tells him something.

Rousseau was the great advocate of natural learning. Emile was to be taught by the world of things. His teacher was to draw his attention to that world, but otherwise his education was to be negative. There were to be no arranged consequences. When Rousseau's disciple, Pestalozzi, tried the methods of his own flesh-and-blood son, he ran into trouble. His diary is one of the most pathetic documents in the history of education. As he walked with his young son beside a stream, Pestalozzi would repeat several times "and flow downhill." He would show the boy that "wood swims in water and...stones sink." Whether the child was learning anything or not, he was not unhappy, and Pestalozzi could believe that at least he was using the right method. But then the world of things had to be left behind, failure could no longer be concealed. "I could only get him to read with difficulty; he has a thousand ways of getting out of it, and never loses an opportunity of doing something else." He could make the boy sit still at his lessons by first making him "run and play out of doors in the cold," but Pestalozzi himself was then exhausted. Inevitably, of course, he returned to aversive measures; "He was soon tired of learning to read, but as I had decided that he should work at it regularly every day, whether he liked it or not, I determined to make him feel the necessity of doing so, from the very first, by showing him there was no choice between this work and my displeasure which I made him feel by keeping him in."

Getting attention. The failure of "showing and telling" is sometimes attributed to lack of attention. We are often aware that we ourselves are not listening or looking carefully. If we are not to punish the student for not looking and listening, how can we make him concentrate? One possibility is to make sure that there is nothing else to be seen or heard. The schoolroom is isolated and freed of distractions. Silence is often the rule. Physical constraints are helpful. Earphones reassure the teacher that only what is to be heard is going into the student's ears. The TV screen is praised for its isolation and hypnotic effect. A piece of equipment has been proposed which achieves concentration in the following desperate way: the student faces a brightly lighted text, framed by walls which operate on the principle of the blinders once worn by carriage horses. His ears are between earphones. He reads part of the text aloud and then listens to his recorded voice as he reads it agian. If he does not learn what he reads, it is certainly not because he has not seen it!

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A less coercive practice is to make what is to be seen or heard attractive and attention-compelling. The advertiser faces the same problem as the teacher, and his techniques have been widely copied in the design of textbooks, films, and classroom practices. Bright colors, variety, sudden change, big type, animated sequences - all have at least a temporary effect in inducing the student to look and listen. They do not, however, teach the student to look and listen, because they occur at the wrong time. Similar weakness is seen in making school itself pleasant. Attractive architecture, colorful interiors, comfortable furniture, congenial social arrangements, naturally interesting subjects - these are all reinforcing, but they reinforce only the behavior they are contingent upon. An attractive school building reinforces the behavior of coming in sight of it. A colorful and comfortable classroom reinforces the behavior entering it. Roughly speaking, these things could be said to strengthen a positive attitude toward school. But they provide merely the setting for instruction. They do not teach what students are in school to learn.

In the same way audio-visual aids usually come at the wrong time to strengthen the forms of behavior which are the principal concern of the teacher. An interesting page printed in four colors reinforces the student simply for opening the book and looking at it. It does not reinforce reading the page or even examining it closely; certainly it does not reinforce those activities which result in effective recall of what is seen. An interesting lecturer holds his listeners in the sense that they look at and listen to him, just as an interesting demonstration film reinforces the behavior of watching it, but neither the lecture nor the film necessarily reinforces listening or listening in those special ways which further recall. In good instruction interesting things should happen after the student has read a page or listened or looked with care. The four-color picture should become interesting when the text which accompanies it has been read. One stage in a lecture or film should be interesting only if earlier stages have been carefully examined and remembered. In general, naturally attractive and interesting things further the primary goals of education only when they enter into much more subtle contingencies of reinforcement than are usually represented by audio-visual aids.

Making material easy to remember. It is possible that students may be induced to learn by making material not only attractive but memorable. An obvious example is making material easy. The child first learns to write in manuscript because it resembles the text he is learning to read; he may learn to spell only words he will actually use; if he cannot read he can listen to recorded speech. This sort of simplification shows a lack of confidence in methods of teaching and often merely postpones the teacher's task, but is sometimes a useful strategy. Material which is well organized is also, of course, easier to learn.

Some current psychological theories suggest that material may be made memorable in another way. Various laws of perception imply that an observer cannot help seeing things in certain ways. The stimulus seems to force itself upon the organism. Optical illusions are often cited as examples. These laws suggest the possibility that material may be presented in a form in which it is irresistibly learned. Material is to be so "structured" that it is readily - and almost necessarily - "grasped." Instructional examples are, however, far less persuasive than the demonstrations, offered in support of them. In trying to assign an important function to the material to be learned, it is particularly easy to overlook other conditions under which learning actually occurs.

The teacher as midwife. No matter how attractive, interesting, and well structured material may be, the discouraging fact is that it is often not learned. Rather than continue to ask why so many educational theorists have concluded that the teacher cannot really teach at all but can only help the student learn. The dominant metaphor goes back to Plato. As Emile Brehier puts it, "Socrates...possessed no other art but maieutics, his mother Phaenarete's art of delivering; he drew out from souls what they have in them..." The student already knows the truth: the teacher simply shows him that he knows. As we have seen, however, there is no evidence that the boy in the scene from Meno learned anything. He could not have reconstructed the theorem by himself when Socrates had finished, and Socrates says as much later in the dialogue: "If someone will keep asking him these same questions often and in various forms, you can be sure that in the end he will know about them as accurately as anybody." (Socrates was a frequency theorist!)

It must be admitted that the assignment was difficult. The boy was starting from scratch. When Polva uses the same technique in presiding at the birth of the formula for the diagonal of a parallel pipe his students make a more positive contribution because they have already had some geometry, but any success due to previous teaching weakens the claim for maieutics. And Polva's promptings and questionings give more help than he wants to admit.

It is only because mathematical proofs seem to arise from the nature of things that they can be said in some sense to be "known by everyone" and simply waiting to be drawn out. Even Socrates could not argue that the soul knows the facts of history or a second language. Impregnation must preceed parturition. But is it not possible that a presentation which has not seemed to be learned is the seed from which knowledge grows to be delivered by the teacher? Perhaps the intellectual midwife is to show the student that he remembers what he has already been shown or told. In *The Idea of a University*, Cardinal Newman gave an example of the maieutic method applied to acquired knowledge. It will stir painful memories in many teachers. A tutor is talking with a candidate about a bit of history - a bit of history, in fact, in which Plato's Menon lost his life.

T. It is the Anabasis you take up?...What is the meaning of the word Anabasis? O is silent.

T. You know very well; take your time, and don't be alarmed. Anabasis means...O. An ascent...

T. Who ascended? O. The Greeks, Xenophon.

T. Very well; Xenophon and the Greeks; the Greeks ascended. To what did they ascend?

O. Against the Persian King; they ascended to fight the Persian king.

T. That is right...an ascent; but I thought we called it a descent when a foreign army carried war into a country? O. Yes.

T. Don't we talk of a descent of barbarians? O. Yes.

T. Why then are the Greeks said to go up? O. They went up to fight the Persian king.

T. Yes, but why up...why not down? O. They came down afterwards, when they returned back to Greece.

T. Perfectly right; they did...but could you give no reason why they are said to go up to Persia, not down? O. They went up to Persia.

T. Why do you not say they went down? O. pauses, then,...They went down to Persia.

T. You have misunderstood me.

Newman warned his reader that the Candidate is deficient to a great extent...not such as it is likely that a respectable school would turn out. He recognized a poor student, but not a poor method. Thousands of teachers have wasted years of their lives in exchanges which have been no more profitable - and all to the greater glory of maieutics and out of a conviction that telling and showing are not only inadequate but wrong.

Although the soul has perhaps not always known the truth nor ever been confronted with it in a half-forgotten experience, it may still seek it. If the student can be taught to learn from the world of things, nothing else will ever have to be taught. This is the method of discovery. It is designed to absolve the teacher from a sense of failure by making instruction unnecessary. The teacher arranges the environment in which discovery is to take place, he suggests lines of inquiry, he keeps the student within bounds. The important thing is that he should tell him nothing.

The human organism does, of course, learn without being taught. It is good that this is so, and it would no doubt be a good thing if more could be learned in that way. Students are naturally interested in what they learn by themselves because they would not learn if they were not, and for the same reason they are more likely to remember what they learn in that way. There are reinforcing elements of surprise and accomplishment in personal discovery which are welcome alternatives to traditional aversive consequences. But discovery is no solution to the problems of education. A culture is no stronger than its capacity to transmit itself. It must impart an accumulation of skills, knowledge, and social and ethical practices to its new members. The institution of education is designed to serve this purpose. It is quite impossible for the student to discover for himself any substantial part of the wisdom of his culture, and no philosophy of education really proposed doing this. Great thinkers build upon the past, they do not waste time in rediscovering it. It is dangerous to suggest to the student that it is beneath his dignity to learn what others already know; that there is something ignoble (and even destructive of "rational powers") in memorizing facts, codes, formulae, or passages from literary works, and that to be admired he must think in original ways. It is equally dangerous to forgo teaching important facts and principles in order to give the student a chance to discover them for himself. Only a teacher who is unaware of his effects on his students can believe that children actually discover mathematics, that (as one teacher has written) in group discussions they "can and do figure out all of the relationships, facts, and procedures that comprise a full program in math."

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There are other difficulties. The position of the teacher who encourages discovery is ambiguous. Is he to pretend that he himself does not know? (Socrates said Yes. In Socratic irony those who know enjoy a laugh at the expense of those who do not.) Only for the sake of encouraging a joint venture in discovery is the teacher to choose to teach only those things which he himself has not yet learned? Or is he frankly to say, "I know, but you must find out," and accept the consequences for his relations with his students?

Still another difficulty arises when it is necessary to teach a whole class. How are a few good students to be prevented from making all the discoveries? When that happens, other members of the class not only miss the excitement of discovery but are left to learn material presented in a slow and particularly confusing way. Students should, of course, be encouraged to explore, to ask questions, to study by themslves, to be "creative." When properly analyzed, as we shall see, the kinds of behavior referred to in such expressions can be taught. It does not follow, however, that they must be taught by the method of discovery.

The idols of the school. Effective instructional practices threaten the conception of teaching as a form of maieutics. If we suppose that the student is to "exercise his rational powers," to "develop his mind," or to learn through "intuition or insight," then it may indeed be true that the teacher cannot teach but can only help the student learn. But these goals can be restated in terms of explicit changes in behavior, and effective methods of instruction can then be designed.

In his famous four idols, Francis Bacon formulated some of the reasons why men arrive at false ideas. He might have added two special Idols of the School which affect those who want to improve teaching. The Idol of the Good Teacher is the belief that what a good teacher can do, any teacher can do. Some teachers are, of course, unusually effective. They are naturally interesting people, who make things interesting to their students. They are skillful in handling students, as they are skillful in handling people in general. They can formulate facts and principles and communicate them to others in effective ways. Possibly their skills and talents will someday be better understood and successfully imparted to new teachers. At the moment, however, they are true exceptions. The fact that a method proves successful in their hands does not mean that it will solve important problems in education.

The Idol of the Good Student is the belief that what a good student can learn, any student can learn. Because they have superior ability or have been exposed to fortunate early environments, some students learn without being taught. Possibly we shall someday produce more of them. At the moment, however, the fact that a method works with good students does not mean that it will work with all. It is possible that we shall profess more rapidly toward effective education by leaving the good teacher and the good student out of account altogether. They will not suffer, because they do not need our help. We may devote ourselves then to the discovery of practices which are appropriate to the remaining - what? - ninety-five percent of teachers and students.

The Idols of the School explain some of the breathless excitement with which educational theorists return again and again to a few standard solutions. Perhaps we should regard them as merely two special cases of a more general source of error, the belief that personal experience in the classroom is the primary source of pedagogical wisdom. It is actually very difficult for teachers to profit from experience. They almost never learn about their long-term successes or failures, and their short-term effects are not easily traced to the practices from which they presumably arouse. Few teachers have time to reflect on such matters, and traditional educational research has given them little help. A much more effective kind of research is now becoming possible. Teaching may be defined as an arrangement of contingencies of reinforcement under which behavior changes. Relevant contingencies can be most successfully analyzed in studying the behavior on one student at a time under carefully controlled conditions. Few educators are aware of the extent to which human behavior is being examined in arrangements of this sort, but a true technology of teaching is imminent. It is beginning to suggest effective alternatives to the aversive practices which have caused so much trouble.

CHANGES AND TRENDS
or
"Looking Through a Glass Darkly"

Trying to predict just what will be the conditions you will face is like looking through a cloudy window. Precise predictions are impossible. We can, however, get a general picture by examining certain trends in society and education. A number of trends and projections have been identified which appear to be especially significant to future teachers. They are:

1. A trend towards making social institutions accountable for achieved societal goals.
2. A trend towards students themselves making decisions as to what they will learn and how they will go about learning.
3. A trend towards development of new technologies of instruction and self-instructional methods.
4. A trend towards doubting the value of formal education and of the Protestant work ethic.
5. A trend towards making education more meaningful in vocational terms.
6. A trend towards making education more useful to minority groups as they attempt to improve their social economic status.
7. A trend towards a twelve month school year.
8. A trend towards shorter work weeks.
9. A trend towards reducing the "monopoly" of public schools by contracting with private companies for achieving educational goals and for providing parents with "vouchers" which they may use to pay other schools for education of their children.
10. A trend towards an oversupply of teachers.
11. A trend towards teacher unionization.

On the surface, many of these trends seem to be contradictory. For example, it is difficult to see how a teacher can be held "accountable," if students exercise a great deal of free choice in what and how they are going to learn.

This article deals with an analysis of these trends, defining them rather completely and comparing educational practices under these new conditions with educational practices as we have experienced them while students.

Each of the following sections will deal with one of the trends in more but varying degrees of detail. Some sections attempt to summarize available information on each trend, while others refer you to specific handouts or library readings.

Trends

1. Accountability: Read "Accountability; Questions to Think On" which appears as the next reading selection following this article.

2. Student Decision Making.

It is difficult to assemble data which will portray this trend. However, there seems to be no doubt that students desire and in some cases are demanding a greater say in curriculum planning. They cry for "relevance" which keeps appearing in news stories and in interviews with students and tends to reflect this trend.

Traditionally, of course, such curricular decisions have been reserved for the experts. Chemists, for example, have decided what should be the content of the chemistry courses. Historians have decreed what historical analysis should be considered best and have written books (which set curricula) with limited points of view.

The demand for "Black history" is an example of students insisting that their own judgment of what is best for them to learn is preferable as a course; it is a reversal of a traditional pattern of education decision making.

The arguments for reversing the decision making process are many and some are quite complex. Some are listed below, but space limitations prevent a full discussion of each. Perhaps the listing will provoke you into researching each argument of your own.

A. It is often pointed out that there is no evidence that one kind of learning is better than another. This being the case, even immature decisions of first graders stand an equal chance of being good decisions, and they should be given the privilege of deciding whether or not they want to learn to read, to learn to play a game, to watch birds or whatever.

B. Some arguments cite evidence that learning is more complete and retained longer if it has "meaning" or is of interest to the learner. Since only the learner knows what has meaning to him and what his interests are, he should pick and decide what he will learn.

C. Number B is often coupled with an argument that if learners are involved in the decision making process, they will become better decision makers, which is viewed as a desirable outcome of education. In a sense, by making decisions themselves, they will test their interests, learn from their successes and failures, and learn about themselves.

D. Traditional curricula are usually established to meet college admission requirements and at least half the students in high school do not go to college. Therefore, such graduation requirements are just a waste of time for many students. The non-college going student will know as well as teachers, how much and what kind of learning he should have in the humanities, sciences, etc.

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Each of these arguments can be and has been rebutted. But each argument is generally conceded to have some element of truth and some valid logic. Teachers in the schools of the future probably will find, however, that being able to rebutt the argument will not be the answer to the problem posed by student demands for greater autonomy. Neither will the problem be met by recourse to authority. "Pulling rank" leads to student resentment and rejection of school and teachers. Persuasion and propaganda are increasingly effective (and questionable on ethical grounds) as students become more knowledgeable.

Are there approaches and methods the teacher may follow and employ to give students more options and at the same time be accountable? What skills and competencies do teachers needto master to be able to employ these methods? This will need to be a major consideration in your planning of additional learning experiences in Spiral III.

New Technologies

New technologies make old ones obsolete. Today we have programmed texts in almost every conceivable subject. The same is true for computer assisted instruction. Instructional TV blankets the country, teaching everything from medieval history to Japanese paper folding (Origame). Educational games instruct in foreign languages and complex problem solving skills. Companies are producing audio tapes for cassette players which plug into an automotive cigarette lighter and can deliver a complete lesson during the trip between home and the office. All of these techniques are "low labor intensive" (to use a new term), they instruct without teachers. Some authorities have proposed that with these new technologies we can establish a "learning center" in each home and thus do away with expensive school plants and significantly reduce other instructional costs. Also, by making the home into a school, we can involve parents much more closely in their children's lives and can thus restore the integrity of the family unit.

Truly new technologies have the potential for making the old obsolete.

But is the potential really there? Or are these instructional devices just gimmicks?

To quickly and superficially summarize - the evidence that students can and do learn through technologically mediated instruction. The successes are not 100% but they fare favorably, in a majority of cases, to teacher mediated instruction! And - there seems to be no practical limit to the kinds of learning that can be automated; traditional subject matter skills, problem solving skills, social skills and even healthy self concepts can be programmed into these learning experiences. There are a few indications that these instructional technologies are especially effective with educationally disadvantaged students.

The newer technologies are being accepted with great reluctance by the educational community. So far, high initial costs and difficulties in standardization have held back wide-spread adoption, so educational resistance is more of an academic on theoretical resistance than resistance to an actuality.

However, costs are being reduced through mass production for a mass audience. It seems reasonable that within the near future, most schools, will be able to afford the basic equipment (often referred to as "hardware") and program materials (software) to offer about any course they wish on an automatic, self instructional basis and to even develop special courses to satisfy individual students.

This raises some very profound questions for teachers of the future. For example, what kinds of new jobs or positions will the new technology open in education? How knowledgeable about the basic science of learning is the teacher going to need to be able to make intelligent use of the new technologies? How will the introduction of technology change the teacher's job? Does the new technology offer a means for the teacher to provide the students with more options and yet be accountable? Think on these things!

Changing Values

Is education good? Is work good? Our forefathers believed both to be true almost to the extent that they assumed the position of religious dogma. "Easy" education and "easy" work were less good than "hard" education and "hard" work. "The devil finds work for idle hands," and "By the sweat of your brow shall ye earn bread" were unquestionable rules of life.

It is obvious that these values are disappearing. Maybe not entirely gone - but fading out. They are being replaced by another set of values. Newer values tend to emphasize day-by-day enjoyment of life, learning by self-analysis, and direct experience rather than by schooling, removal of all the status symbols of degrees and honor grades that tend to stratify people into classes and divide them and to replace the values reflected with a valuing of human dignity regardless of educational attainment or vocational identity.

The traditional school placed great emphasis on these values. They used the value to "motivate" learning. It was popularily assumed that students would learn in order to get a good job or at least learn in order to avoid failure in school and thus face a bleak occupational future.

Obviously the teacher of the future is going to find threats of failure to be less motivating. What can the teacher use if vocational and college success are no longer valued by large numbers of students? What motivates you to learn?

Vocational Emphasis

Contrary to trend number four, there is a growing emphasis on making course offerings more vocationally relevant. This is not just a matter of adding vocational courses per se, but reducing the abstract learnings in math, science, English, etc., and increasing the direct application value of such courses to students future vocations. Federal legislation in the educational field has increased appropriations several fold the past few years in the whole area of vocational education.

Teachers will need to examine their course objectives and educational philosophy very carefully in light of this trend. It may mean giving up some cherished ideals and also developing some new competencies, that is, learning in what specific ways your field can relate to developing vocational and general life skills in your students.

Relevance for Minority Groups

Is there anyone who is not aware of this trend? Probably not, so we'll not elaborate here. The growing concern of minority groups for the education their children are receiving is having a wide-spread impact. It is leading to questions about the appropriateness of an inner city school which is staffed by middle-class whites. Can they develop a special set of skills which will enable them to be effective with children from minority cultures? Or are they so restricted by their backgrounds that they cannot "relate" to such children?

The answer to these questions is not clear as yet. Many members of the minority groups doubt that a white middle-class teacher can overcome his past history and become able to provide a sound learning experience for these children. On the other hand, some professionals believe otherwise that there are techniques which any person can learn and which will be effective with learners from any culture.

The question which must be answered by any teacher in training is: Am I likely to be held accountable for learning gains by students who have a cultural background different from my own? And, are the instructional methods and techniques I am learning going to be effective with children and youth from diverse cultural backgrounds?

12 Month School Year

This trend is perhaps less obvious than some of the others. There are instances where school systems will operate a limited summer program for special groups of students but very few, if any, schools which operate a 12 month school program are now in existence.

However, there are many signs that the 9 month tradition is weakening. Newspaper editorials have raised questions about the economics of keeping expensive buildings and equipment idle for 3 months of the year. Educational theorists have felt that with the "knowledge explosion" more time is required for students to master essential knowledge and skills.

There is no consensus on the point, however. Some people feel the experiences that students have during the summer are educationally valuable too. For example, the social learnings that occur during free play, recreational programs, having to make their own decisions about how time is to be spent, are all important.

The question for the teacher in training is not only "what do I believe or feel about a 12 month school year" but what do I need to do to be ready for it if it comes? Are there special motivational problems to get ready for it? How should a teacher organize work for a 12 month year? How could a class be organized to permit students to join their families on a 2 week vacation and still do the course work?

Shorter Work Week

Is it possible that the future will bring a standard work week of 30 or even 25 hours? Some economists are predicting it. We know that there are some jobs which require no more than that now. We also know that the work of the nation does not require all the workers that are available. (5% unemployed plus another 1-2% in the armed forces). We also know that technology is now available to replace other whole occupational groups. So, perhaps the predictions of a shorter work week have some validity.

Teachers may benefit from this trend. It will also give them some problems to solve. For example, shorter work week means more leisure time. To what extent should teachers and schools prepare their students for more leisurely activities? Does this have implications for course goals and objectives?

Performance Contracting

The "Texarkana Project" is the most widely known example. A similar project in the Banneker elementary school in Gary, Indiana was undertaken in 1970-71.

It is predicted by many people that "Performance Contracting" (in which the contractor guarantees that the students will learn) is a very positive step in education. It forces the educator to produce, and if he does not produce, he is not paid. Many people today would like to see all schools operated with performance contracting.

One might agree with performance contracting in principle but still oppose it in practice. It has been pointed out that while it is good to hold teachers accountable and make their pay dependent on performance, that measures are very imprecise and that in actuality teachers will begin to teach for the tests rather than for mastery. Also, there are educational outcomes other than subject matter gains. What about self-esteem, cooperativeness, respect for other people, etc. Shouldn't performance contracts specify that the contractor is responsible for these kinds of learning, too? In addition to these practical questions: can you trust a profit-making company to sacrifice some or all profit for the welfare of a single child?

Job Market

There are many rumors about an oversupply of teachers. Some predictions are that the excess of graduates over demand is around 10%. We know that enrollments in teacher training institutions have increased by about 10% in the past three years and that the birthrate has tended to fall off somewhat since the days of the post-war "baby boom."

Also, we know that a considerable number of people who have teaching credentials but have employed in government or industry, are now reentering the teaching field because of the down turn in the economy.

However, these facts simply point up a general condition. The employment situation for a specific graduate is more complex. There are differences in supply and demand within the various teaching fields. Geography plays a part, too. It is more difficult to find a position in an urban setting than in a rural community, except that there are still shortages of teachers willing to teach in the inner-city.

The placement bureau has available information on such trends. Information is also available from staff members.

Teacher Unionization

Is it desirable for teachers to unionize? To go out on a strike? To bargain collectively for salaries and working conditions? Is it better for teachers to be professional rather than tradesmen?

Union membership among teachers is growing. The NEA, which for years considered itself a "professional" organization, is acting more and more like a union. Teachers as a group are sounding more and more militant - such as did the men in the A.F.L. and the C.I.O. in the 1930's.

Where do you stand? What knowledge do you need to decide? Will unionization of teachers result in improved education for children?

All questions are for you to consider. The NUSTEP staff does not take an official position (although we each have our own ideas). We do think, however, that teachers-in-training should consider the questions and arrive at their own answers. No doubt many of you will be approached to join a union within a few years and may even become actively engaged in union affairs.

ACCOUNTABILITY: QUESTIONS TO THINK ON

1. What kinds of skills will a teacher need in communicating promised outcomes (objectives) to parents, children, school officials, etc.

2. What kinds of skills will a teacher need in planning instructional strategies and developing instructional materials? (Consider implications of accountability for teachers being required to predict instruction).

3. What kinds of skills will teachers need in measuring learner development and in evaluating instruction?

4. What kinds of skills will teachers need to be able to communicate evaluations of individual learners, to parents, and to school officials?

5. What kinds of skills will teachers need to stimulate learners to achieve objectives?

Use your cooperating teacher and subject specialist or proctor as a resource in completing this assignment.

Learning Task 31
CONTRACTING AS A PROCESS FOR MANAGING INDIVIDUALIZED INSTRUCTION

PROBLEM AREA: We know now that people differ and if instruction is to be effective, it must be geared to the differences among students -- this is what is meant by individualization. The problem this fact presents to teachers is obvious. How can one organize and run a classroom of thirty students, each one working on mastering his own objectives? The problem is compounded when we consider the many ways in which people differ. Some learn very fast, others more slowly. Some are reinforced by teacher praise, others are not, they are reinforced by other things. Some students have clear cut goals, others seem to have no goals or even conflicting goals. A few students are very poorly coordinated, while others are quite dextrous. Some are jittery, while others are calm. Many students can work with concentration for an hour but a few have a very limited span of attention. To plan and carry out a program of instruction for students who vary so greatly will require you to plan and implement learning experiences in ways that are quite different from the methods used by your teachers. Rather than a stand-up teacher, you must become a classroom manager.

In general sense, the concept of a teacher as a classroom manager means the same thing as being a manager of any other enterprise. Managers must plan, implement their plan, evaluate their plan and revise their plan, a constant cycle. Most managers direct the work of other people who are working at a variety of tasks so their planning and operations must allow for the diversity of activities and functions. In other words, their plans must include provisions for individuals.

The analogy between classroom management and business management holds only to a limited extent however. In education, we want worker/students to become self-managers whereas the business manager wants his workers to become more proficient workers. In education -- our desire to develop self-management skills in students means, in effect, each student progressively develops the skills for becoming "his own teacher." This may turn out to be the skill development that will do him the most good throughout life, since he will always face requirements to learn. So -- not only must we as teachers learn to manage a class so as to provide optimum learning experiences for individuals, we must also prepare students to teach themselves. A very complex managerial task.

One of the NUSTEP Goals is to provide you with versatility in planning and carrying out instruction. That is, to give you skills in a variety of methods and approaches -- then you may select the one(s) which work best for you. The process known as contingency contracting is one of several processes which can be used to solve the instructional problems in managing an individualized classroom. When you have completed this task, you will have one more method or approach to use in solving the problem of managing your future classes. You should also know enough about it to decide whether or not to use it.

PERFORMANCE OBJECTIVES:

The TEP can:

1. Answer 6 or 7 questions which deal with contingency contracting (Attached)
2. Write two sample contracts for students in your teacher assisting setting, which meet criteria for good contracts as outlined in Homme, Contingency Contracting.
3. Try out a contract or contracts with a student in your teacher assisting setting and assess the results of the contracting.

PREREQUISITES:

Completion of Spiral I

LEARNING ACTIVITIES:

Type A - Input Activities

1. Read Contingency Contracting, a small paperback by Lloyd Homme, available at the bookstore under EPM 162. A limited number of copies are also on reserve at the Undergraduate Library.

Type B - Analysis/Application Activities

1. Write contracts for students in your teacher assisting setting, using the criteria which Homme outlines, e.g., a contract should be positive, etc.

Type C - Evaluation Activities

1. Complete questions (attached) over contingency contracting. Turn in to proctor.
2. Try out a contracting system with one or more students and collect necessary information for judging whether or not the system succeeded or not. Share the contracts and the data on student performance with your proctor.

Type D - Challenge Activities

1. Compare contingency contracting as you understand it and its implications to some other educational method with which you are familiar. Present written discussion to and discuss your comparison with your proctor or other staff member.

Questions over contingency contracting: Information Source: Contingency Contracting by Lloyd Homme.

1. Our legal system is basically an example of a
   a. positive contract system
   b. negative contract system

2. A salesman who works under an agreement where he gets a 5 percent commission on each sale is working under a:
   a. positive contract system
   b. negative contract system

3. Which of the following arrangements with high school students is the best example of Grandma's Law (and a positive contract)?
   a. "If you get home after midnight, you're grounded for a month.
   b. "If you get into trouble with the law, don't come to me for help."
   c. "If you don't fool around in class today, I won't give you a quiz."
   d. "If you finish your work before class ends, you can do what you like."

4. The goal of any contingency contracting system should be
   a. manager controlled contracting
   b. transitional contracting
   c. student controlled contracting

5. Which of the following macro-contracts is probably the best contract?
   a. Monday is the deadline for the paper. Papers handed in after Monday will be marked down one letter grade for each day they are late.
   b. Those who don't complete Task II and XII by Friday, will have to attend a makeup session on Monday morning at 8:00 o'clock.
   c. Those who don't complete Task II and XII by Friday cannot go on to Spiral 2.
   d. Those who complete II and XII by Friday are eligible for a 3-week trial period of the teacher assisting (optional) and may substitute a task of their own design for any required task.

WHY?

6. Write a positive contract which could be (or has been) used for the NUSTEP program.

7. Write a negative contract which could be (or has been) used in the NUSTEP program.

Learning Task 32
CLASSROOM CONTROL AND BEHAVIOR MODIFICATION

PROBLEM AREA:

A great many students in the secondary schools seem to be bored, apathetic, "turned off," or alternatively belligerent and aggressive - in other words, it would appear that what they are experiencing in school is painful to say the least. All this has important consequences, both for the student and for you. For the student, this kind of experience makes it more likely that he will drop out, that he will come to dislike learning, he will develop a poor self-concept, and, in the long run, become an unfulfilled and unhappy human being. For you as a teacher, when students behave in this manner, you'll feel that you are failing and when apathy and boredom are replaced by antagonism and aggression, you're likely to feel a great deal of resentment toward students like this.

The purpose of this task is to help you learn skills generally grouped under the term "behavior modification." What these skills involve is the managing of classroom conditions such that students achieve success and satisfaction for the appropriate things that they do (as defined by yourself, you and the student, or the student) rather than experiencing failure and punishment for the inappropriate things they do. This management involves mainly the arrangement of positive consequences for appropriate student behavior - the creation of an environment that is responsive to the best in people rather than the worst. The specific skills that will help you create this positive environment are the focus for this task.

PERFORMANCE OBJECTIVES:

1. State reasons for pinpointing specific behaviors and for keeping objective records of behavior.
2. State rules for managing consequences and predict behavior change for particular classes of consequences.
3. Design and carry out a project designed to accelerate or decelerate a behavior of a student in his teacher assisting setting. The project would include a) obtaining of some kind of baseline, b) the pinpointing of a behavior, c) and the systematic management of a consequence or consequences for the behavior.

PREREQUISITE(S): Completion of Spiral I.

LEARNING
ACTIVITIES:

A. READINGS

1. Review Chapter 2 in Changing Classroom Behavior for discussion of recording methods, Chapter 4 for methods of strengthening behavior, and Chapter 5 for methods of weakening undesirable behavior.

2. Read "Modifying Student Behavior."

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. Observe the student you are interested in working with and determine a) consequences which are now occurring in relationship to his appropriate classroom behavior and in relationship to his inappropriate behavior.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Design a behavior modification procedure and obtain agreement of cooperating teacher that you can carry out the project designed to increase appropriate behavior or decrease inappropriate behavior in one or more students by managing cues and/or consequences for the student behavior; specifically, the NUSTEP student will attempt. Carry out the project with one or more students in your teacher assisting in which you a) pinpoint a behavior or behaviors, b) take a baseline measure of how often the behavior is occurring, and c) systematically alter the consequences and/or cues for the behavior. Turn in and discuss the results of your project with your proctor.

MODIFYING STUDENT BEHAVIOR

Many times we can find the causes for behavior in the setting itself. For example, often the "causes" of student misbehavior are present in the school setting and although what the student does is obviously affected by outside conditions (home life, etc.), much of his behavior is determined by what is happening in the school. You can think of many examples: students become bored and misbehave; the teacher introduces an exciting project and students participate with enthusiasm; the teacher blushes at a funny remark and funny remarks become the order of the day. The kinds of things which affect student behavior can be classed into two major categories which we have encountered before, cues for student behavior and consequences for student behavior. You, as a teacher, can bring many of these things under your management and produce student behavior which is both beneficial to the student and satisfying to you as a teacher.

Managing Cues for Student Behavior

Students take their cues for what they do from the kinds of things which you do and other students do. You make a slip of the tongue and students laugh; you give directions and students open their books to the appropriate page, and the boring lecture the teacher is giving may be the cue to look out of the window, do other work, or talk to another student. Presumably you have by now pinpointed a behavior which you either want to increase or decrease. As a beginning point in your program to change the behavior you should attempt to determine what the cues are for the behavior you've pinpointed. If your pinpointed behavior is talking out, you should take careful note of what the conditions are under which the person is talking out. Is he talking always to a particular person, in a particular phase of a lesson when you or the teacher say a certain thing? If you determine what the cues are for the behavior, you may find that you can easily change them. The solution to some problems may be obvious. If John is always looking out the window and never paying attention to the class, a move might be in order. The same kinds of change may be in order for the person who is always disrupting the class by waving and talking to friends that pass by in the hall. Oftentimes, if the cue is removed for a misbehavior, the behavior may disappear. Not all cues of course are so obvious as in these examples and not all solutions as simple as these in terms of stopping misbehavior. Also, you can expect that when the cues again become present, the behavior will begin again.

On the other side of the coin, assume that you want to increase participation of a particular student in class discussion. You may find that there presently may be few cues for this particular student to bring about participation and that you could easily supply some cues, such as questions he is likely to be able to answer. Encouraging the student to participate (for example, in before-class individual conference) is also a form of cueing and may be effective. In general, if you want to increase a behavior you have to make sure that the cues for the behavior are present and if they are not, you should make sure that they are.

Managing Consequences for Student Behavior

Unless you have background in reinforcement psychology, you may find it hard to accept that the behavior of the human being can be very greatly controlled by managing the consequences of the behavior. We're used to thinking that the human being is in complete control of what he does, that is, that he decides to do something and that is the explanation of why he does a particular thing. However, (fortunately or unfortunately, depending on your view), research has shown that much of what we do is very sensitive to the effect that a behavior produces. That is, it has been shown that behaviors which produce consequences which we generally would call pleasant tend to become stronger and that behaviors which produce no consequences at all (of any consequence) than to fade away like old soldiers. Behaviors which produce consequences which we could call unpleasant or aversive tend to be temporarily abandoned, but often some emotional reaction takes the behavior's place. Researchers have used management of consequences (with and without people's awareness) to change the following things (among hundreds of examples: getting a schizophrenic to say his first word in years and to rebuild his vocabulary, increasing the number of opinion statements persons make, increasing time spent in the seat and studying behavior, increased class participation, increasing reading rate and controlling one's blood pressure). This latter was done with males by monitoring their baseline blood pressure and rewarding them each time their pressure went down or up from the baseline. Depending on whether they were being rewarded for changing down or up, subjects learned to either decrease or increase their blood pressure. The reward was a brief look at a Playboy centerfold but what does this have to do with the behavior which you may like to change in the school? The answer is this: by systematically managing consequences and arranging cues for behavior (or removing them), you can change a student's behavior.

We mentioned those behaviors which produce positive consequences. In an earlier task we called this arrangement positive reinforcement or positive control. Assuming that you have a behavior which you would like to strengthen, you may want to introduce a positive consequence, contingent on the behavior. That is whenever the behavior occurs, you can arrange to have a positive consequence follow the behavior. If you were talking about increasing the rate of volunteering answers, your consequences might be approval of his answer. If you're tutoring a student, you may want to set up a point system as a consequence for certain behaviors or manage your comments as positive consequences. Hopefully, we'll get to talk at length about the possibilities open to you in terms of positive reinforcement to strengthen behavior.

We mentioned behavior which produced no consequences as tending to die out. It may be that if your goal is to decrease a particular behavior, you may want to try to remove the consequences for the behavior. Often teachers maintain misbehavior by their reactions to the misbehavior: that is, they reward it, in that students may enjoy irritating the teacher. One approach which might be tried here would be an extinction procedure, which is the procedure for removing consequences for behavior. At the same time, you might want to try to strengthen some other behavior which is incompatible with the misbehavior. That is, if it's unlikely that a person can look out of the window and participate at the same time, you may want to try to strengthen participation rather than to extinguish looking out of the window. Extinction procedures sometimes take a little nerve on the part of the teacher, such as if you decided to extinguish swearing at you by ignoring it, but it is almost always more effective than punishment.

You can temporarily suppress behavior by punishing it but there are a number of things against it which lead us to recommend that you not use it. First, it arouses emotion. We don't care much for people who punish us. Second, counteragression is often the result. That is, a natural tendency on the part of both animals and humans is to get that thing that is punishing us. So if we punish someone, his natural tendency is to want to return the favor. Third, punishment's effects are unpredictable. Sometimes we temporarily stop the behavior by punishing it, but equally likely are emotional blowups, withdrawal, surliness, avoidance and escape behavior - none of which we wanted to cause. For these reasons, we would hope that your program to change behavior concentrates on positive reinforcement either of the behavior you want or of one which is incompatible with the misbehavior. Extinction procedures are also very effective and may be used in conjunction with the positive reinforcement program.

Learning Task 33
VERBAL LEARNING FOR TEACHERS OF BUSINESS EDUCATION

PROBLEM AREA:

All teachers must be concerned about retention of learning by their students. We all have had experiences in which something (such as a memorized phone number), learned earlier, is "forgotten." Studies have shown that, as much as 70 per cent of what is learned is "lost" or forgotten within a few days of learning.

This impermanence of learning has led many educators to doubt the value of much "learning of facts." Since such rote or memorized learning is typically lost or forgotten, they argue, why bother insisting that students learn it in the first place?

Yet, the problem remains, it is more efficient if one can memorize a number of basic facts, principles, procedures, etc. The multiplication tables, the rules or procedures for converting decimals to fractions, formulas for computing compound interest, procedures for operating and maintaining office equipment, the symbols for shorthand, standardized abbreviations, etc., are all examples of learning which are useful to students in business education and which call for memorization.

The problem the teacher has is organizing and planning learning experiences to insure long-term recall (retention) rather than short-term recall. The research in the area of verbal learning will help in planning learning experiences that encourage retention.

PERFORMANCE OBJECTIVES:

1. By the end of this task you should be able to define and give examples of the following terms on an objective test:

   a. Verbal learning
   b. Verbal association
   c. Meaningfulness
   d. Verbal mediators
   e. Massed practice
   f. Distributed practice
   g. Incidental learning
   h. Overlearning
   i. Whole and part learning
   j. Feedback
   k. Confirmation procedures
   l. Interference theory of forgetting
   m. Retroactive inhibition
   n. Proactive inhibition
   o. Serial-position effect
   p. Morpheme
   q. Phoneme

2. By the end of this task you should be able to answer test questions which ask you to explain or describe the verbal learning principles associated with:
    - a. the stages of development of verbal skills in children
    - b. the effects of increased meaningfulness on retention
    - c. the uses of verbal mediators in increasing retention
    - d. the arrangements of practice which increase retention of new vocabulary
    - e. the organization of learning experiences which reduce the effects of retroactive and proactive inhibition
    - f. a method for increasing the retention of material presented near the midpoint of a serial learning task

3. Design a self-instructional process for memorizing the seven instructional steps recommended by DeCecco for teaching of verbal skills. Devise a measure to test for retention.

PREREQUISITES: None

LEARNING ACTIVITIES:

A. READINGS

1. Chapter 9, pp. 322-382 in J.P. DiCecco, *The Psychology of Learning and Instruction.* (On reserve for NUSTEP Students in the Undergraduate Library.)

B. DISCUSSION

Come to class *prepared* to:

1. Raise questions about aspects of the reading assignment which were unclear.
2. Provide *examples* from your past experience as a student or from your observations during teacher assisting, of how student retention could be improved by following the principles of verbal learning.
3. Decide on how teachers should *measure* retention.
4. Take a 20 item "feedback" test to let you know how well you are learning from your reading of DiCecco. If you answer 18 of 20 correctly, you may assume you are studying effectively and mastering the concepts used in the area of verbal learning.
   (Note: If after examining the objectives, you think you can already answer 18 of 20 items that sample the objectives, you may request the feed-

back test as a pre-test. If you achieve the criterion performance level, you may wish to ignore the reading assignment and skip the discussion.)

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. Examine a unit or partial unit of instruction in your teacher assisting situation. Identify those aspects which (from your readings) you think will result in poor retention.
2. Identify at least four changes you could make in textbooks, workbooks, audiolingual or audiovisual materials, etc. which would probably increase retention.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Prepare and submit to your proctor a short plan for teaching a list of about ten basic terms in your subject. Be able to defend your plan to your proctor by citing appropriate research as reported by DiCecco.
2. Describe in a conference with your proctor, the seven steps recommended by DiCecco for teaching verbal skills. Do not use notes or other aids. In your description show how you applied the seven steps to your process of learning the seven steps. Also, describe how you would test yourself for retention of the seven steps.
3. In presence of your proctor, take a twenty item multiple choice and short answer test over concepts of verbal learning and in applications of principles of verbal learning. The "pass" level is 18 correct. The items will ask you to identify examples of concepts and distinguish correct from incorrect applications of verbal learning principles.

Learning Task 34
SKILL LEARNING

PROBLEM AREA:

What methods for learning a skill are most efficient, produce the most highly skilled behavior and the most positive attitudes toward the skill?

Many times teachers are faced with learning problems that involve the learning of chains or series of responses. For example, the learning of a piece of music involves the piecing together of a fantastic number of individual responses. How does one go best about learning a lengthy and extremely complex chain such as this? Do you break it down into units and then try to put it all back together again? Do you start at the front and work toward the back or at the end of and work toward the middle? The same kind of problem arises in foreign language instruction where again chains are involved, only this time they are verbal chains composed of words and sounds rather than motor chains as in music. What is the best way to teach when this kind of learning is involved?

PERFORMANCE OBJECTIVES:

1. Define the terms chaining and backward chaining.
2. Analyze a specific subject area skill as a chain of responses and develop a plan whereby the skill can be taught as a backward chain.
3. Teach yourself or a student in your teacher-assisting setting a verbal or motor chain using the method of backward chaining.

PREREQUISITE(S): Task 5, Spiral I.

LEARNING ACTIVITIES:

A. READINGS

1. Read attached handout on behavior chains by Logan, F.A. Behavior Chains.
2. Read chapter 8 (Skill Learning) in DeCecco, J.P. The Psychology of Learning and Instruction. On reserve for EPM 162 at the Undergraduate Library.

C. ACTIVITIES FOR PRACTICE IN FIELD SITUATIONS

1. Together with another student, practice a forward chaining method of teaching a simple skill (chain) in your area and compare it to the effectiveness of a backward chaining method.

D. ACTIVITIES FOR EVALUATION OF STUDENT PERFORMANCE

1. Develop a plan for teaching a verbal or a psychomotor chain which is based on the method of *backward chaining* and in which you describe in outline form the steps you would take in using the backward chaining method. Try the plan on yourself in some skill you are learning or test it on a student in your tutoring situation. Turn in your plan and a brief summary of your findings to the proctor.

BEHAVIOR CHAINS

Most of the responses that we have identified as acts are actually sequences of movements strung together to accomplish a goal. When this is explicitely recognized we refer to a behavior chain. A student doing his homework must go to his desk or the library, locate the appropriate book, read it, and take notes, and then, hopefully, study those notes and think about them. This is a long and complex behavior chain. A simpler one is throwing a baseball: the pitcher winds up, cocks his arm, and lets fly. Most conspicuous is talking where sequences of sounds and words are uttered in a pattern necessary to convey an idea to a listener.

Behavior chains are important because, once fully integrated, they tend to run off as single response. When you learn to type, for example, the early responses of typing letter by letter become hooked together into larger units: the word reinforcement may become so well integrated that it is difficult not to make a mistake in typing reinforcing. (Similar errors happen in reading.) This integration is accomplished through feedback; the stimuli of early responses in the chain elicit the later responses directly and automatically. A behavior chain constitutes a sequence of responses initiated by an external event but then run off under the control of feedback. Once integrated, behavior chains may be treated as responses.

Much of what we call learning is, in fact, the integration of little bits of behavior into longer behavior chains. Let us consider first a laboratory example. We wish to train a naive hungry rat to press a bar to obtain food. This response is a chain composed of approaching the bar, raising on the hind paws, placing the forepaws on the bar, pressing down, releasing the bar and going to the place where food has been delivered. We teach a rat to do all this by a process called "shaping" or successive approximations. It is like the game "you're getting warmer" and proceeds in this case something as follows. First, the rat is allowed to discover where the food is delivered and that the click of the feeder signals another pellet of food. We do this until, wherever the rat is, he runs quickly to the feeder whenever he hears the click. Next, we wait until the rat happens to get near the bar and then deliver the pellet. This now causes him to run to the food cup but then he is likely to return to the area near the bar. Now, however, we require that he be facing the bar before a pellet is given. Once he begins to do this, we require that he stand up, later that he place a paw on the bar, and still later that he press on the bar. In sum, the elements of the desired behavior chain are progressively built into his repertoire.

Shaping responses is somewhat of an art, but several guidelines can be asserted. The first and most important is that a behavior chain is best learned in backward fashion - the last element of the chain should be learned first. In the bar-pressing situation, we first taught the rat to approach the food cup when he heard it click. The other two guidelines appear somewhat contradictory. On the one hand, it is important to maintain a sufficient frequency of reward to keep the organism behaving; if a standard is set for the next reward that the organism can not yet achieve, he may stop doing the things he has already learned and will have to begin again. But on the other hand, too frequent reward of a poor approximation to the desired response may cause that imperfect way of responding to become so well learned that the organism fails to continue to make progress beyond it. And hence the art is to give enough reward to keep the organism behaving but not so much at any step in the process that he becomes fixiated there.

Consider, then, a father intent upon teaching his son to hit a baseball. One father spends hours pitching to his son and perhaps becoming exasperated at the lack of progress resulting from his time and effort. Another father ties a baseball to a string and hangs it from a reasonable high tree limb. The boy first learns to hit the baseball while it is motionless - the last component of the chain. This is done with the ball at different heights so he learns to aim the bat at the ball. Once progress is evident at this aspect of the task, the ball is swung from progressively further distances, and only after the boy can hit the swinging ball does the father begin throwing the ball, at first softly and then with increasing vigor.

In summary, many acts such as a rat pressing a bar or a boy hitting a baseball can be broken down into a sequence of elements that must occur in a specified order. These may be integrated into a behavior chain by shaping and then may be treated as a response for that organism.